



Ministry for the  
**Environment**  
*Manatū Mō Te Taiao*

Ministry for Primary Industries  
Manatū Ahu Matua



# *National Policy Statement for Freshwater Management* **Implementation Review**

NATIONAL THEMES REPORT

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# Purpose

This is a review of the implementation of the National Policy Statement for Freshwater Management (NPS-FM) introduced in 2011 and amended in 2014. Its purpose is to provide a stocktake of progress made by regional councils towards setting objectives and limits for freshwater resources in their regions, as required by the NPS-FM.

It highlights the successes and challenges faced in each region, so that councils and their communities can reflect on what is happening around New Zealand and seek improvements where necessary.

This national themes report is a synthesis of the information gathered throughout the review process. More detailed region-by-region reports can be found on the [Ministry for the Environment's website](#).

Ministers have asked the Land and Water Forum to provide an independent commentary on the review to give an external perspective. This can be found on the [Land and Water Forum's website](#).

# Overview

The NPS-FM, first introduced in 2011, is part of the Government's ongoing reforms to improve the way fresh water is managed, in recognition of its importance to New Zealanders.

Giving effect to the NPS-FM requires councils to set objectives and limits for freshwater quality and quantity, and to ensure that land use and water are managed in an integrated way. It requires that iwi and hapū be involved in freshwater management and their values be reflected in decisions about the management of fresh water. Furthermore, water quality must also be maintained or improved to give effect to the NPS-FM.

This review was signalled in the preamble of the NPS-FM, where it states that the Minister for the Environment intends to seek an independent review of the implementation and effectiveness of the NPS-FM no later than 1 July 2016. The Minister directed officials to undertake this review in March 2016.

Every regional authority in New Zealand faces very different circumstances and complexities. Therefore, there are many variations and approaches to implementing the NPS-FM. The findings of this review highlight just how significant and challenging implementation of the NPS-FM actually is. The concept of establishing freshwater objectives and limits in regional plans may appear relatively straightforward. However, implementation has significant challenges including:

- getting representative, effective and timely involvement of:
  - iwi and hapū, particularly in complex cultural environments
  - stakeholders or community representatives
- gathering sufficient supporting information and science and presenting it in a meaningful way to decision-makers
- translating objectives and outcomes established through engagement processes into efficient and effective regional plan rules
- implementing the plan requirements through changes on the ground
- monitoring of outcomes and effectiveness of plans, particularly where measurable change may take a long time
- developing sufficient council capacity and capability to undertake the above with their communities.

This review provides a national snapshot of:

- council progress towards implementing the NPS-FM, including feedback from iwi, hapū and stakeholders
- implementation successes and challenges
- suggested local and central government actions to ensure the successful implementation of the NPS-FM.

It does not make recommendations about further amendments to the NPS-FM itself. A parallel process was carried out to consult on a second round of amendments in 2017 following the first in 2014.

The review consists of this report on national themes, supported by 16 region-by-region assessments of NPS-FM implementation programmes.

## About the reviewers

Our goal at the Ministry for the Environment is to make Aotearoa New Zealand the most liveable place in the world, and to carry out our role as stewards for the environment. We believe this review is an important piece of work to better understand how national level policy is being implemented and to work towards improving New Zealand's freshwater management system.

This review was undertaken by analysts from the joint Ministry for the Environment and Ministry for Primary Industries Water Directorate. We were assisted by two independent consultants who are both certified hearings commissioners with more than 30 years of experience in freshwater management.

The review team visited every region in New Zealand and conducted a series of interviews and panel discussions with council executives and elected councillors, senior council staff, and iwi and stakeholder representatives.

Our intent is to convey accurately the views of the people we spoke to during this review. We would like to sincerely thank all the participants who made the time to talk with us about NPS-FM implementation in their regions.

## Overall review findings

In the five years since the introduction of the 2011 NPS-FM, there has been more focus on improving freshwater management than ever before in New Zealand's resource management history. New Zealand has a highly devolved resource management system where responsibility for management of waterways rests with regional authorities.

Much progress has been made to implement the NPS-FM, but there is criticism that progress has not been quick enough in some catchments and regions. Regions that have made the most progress towards implementing the NPS-FM include Horizons, Canterbury, Waikato and Otago. Regions that have made the least progress include Auckland, Southland and Taranaki.

There has been a positive and marked increase in the level of engagement with communities in regional planning processes. Many councils have embraced the concept of collaboration to great effect. This has occurred particularly in Canterbury, where people we spoke to said that they were having important community conversations that would not have happened five years ago. In the Wellington region, whaitua committee members spoken to were confident that they could deliver the objectives and policies of the NPS-FM.

»» In the five years since the introduction of the 2011 NPS-FM, there has been more focus on improving freshwater management than ever before in New Zealand's resource management history. ««

Most councils that have chosen a collaborative process have done so for their most 'challenging' catchments but may not do so elsewhere. Some councils are using other forms of engagement, such as 'enhanced consultation', for reasons including cost and practicality. The wide spectrum of approaches suggests that there is no single method of engagement that suits all councils and their stakeholders and communities.

▶▶ Much progress has been made to implement the NPS-FM, but there is some criticism that progress is not quick enough in some catchments and in some regions. ◀◀

This move to greater engagement is supported by all we spoke to. However, the following challenges were identified by participants:

- need for a clear understanding of the community's role, how the council will use the community's decisions and recommendations and how these will be translated into a planning document
- tension between local community representatives and those from national organisations
- processes have been very resource intensive and time consuming, leading some to believe that the same environmental outcomes could be achieved with a simpler consultative process.

▶▶ Engagement with iwi and hapū is improving in many regions, but remains one of the biggest challenges for successful implementation of the NPS-FM. ◀◀

Engagement with iwi and hapū is improving in many regions but remains as one of the biggest challenges for successful implementation of the NPS-FM (Part D). Involvement of iwi in management has been particularly challenging for Northland and Gisborne.

Territorial authority understanding of the requirements and implications of the NPS-FM is

variable across the country. Their involvement in addressing water quality issues in urban areas is critical.

Councils with the most capacity and capability to address the challenges of the NPS-FM include Waikato, Canterbury, Wellington, Bay of Plenty, Otago, Southland and Auckland. Nelson, Marlborough and Taranaki are smaller councils that are well resourced for their size. Gisborne, Northland, Tasman and West Coast regions have lower resources than others and larger geographic areas to manage. Their lack of capacity and capability may impede effective implementation.

The NPS-FM requires significant and exponential investment in monitoring and data management. Councils that are best resourced in terms of monitoring and information management include Horizons, Waikato, Canterbury and Wellington. Councils with the least resourcing include the West Coast, Northland and Gisborne. These councils may struggle with ongoing monitoring requirements to implement the NPS-FM.

▶▶ The NPS-FM requires significant and exponential investment in monitoring and data management. ◀◀

Implementation is an important issue that has yet to be extensively addressed by most councils because most processes and plan changes are still under way or even still on the

drawing board. The challenge of implementation is not fully appreciated yet by the public. In many regions, we heard concerns about the effects that implementation would have on land owners.

The wider community's expectations of freshwater management are rapidly increasing. Their understanding of water management processes continues to pose a challenge for regional and national discussion about what is achievable, the costs involved (including who bears them) and the time it takes to improve water quality.

Having an agreed regional implementation strategy could be important to ensure that the collective regulatory and non-regulatory initiatives will lead to desired freshwater outcomes. A plan is only as good as a council's ability to implement it and ensure rules are being complied with. There was a widespread consensus from stakeholders and iwi that monitoring, compliance and enforcement is needed for limits to be effective.

The Government has put significant resources into implementing the NPS-FM, including an extensive programme of implementation support and guidance to help build the capacity and capability of those involved in the management of fresh water. However, this review has shown more work is still to be done, particularly because there is a significant degree of uncertainty about some terms and concepts in the NPS-FM. Some councils did mention that they need respite from regulatory changes to enable them to get on with implementation.

» There is still work to be done to provide clarity on key concepts and to support implementation. «

Councils and some stakeholders were not clear how the NPS-FM fits with various other government initiatives and direction, particularly those promoting increased economic development in areas such as renewable energy production, agriculture and housing.

Overall, good progress is being made in the first five years of NPS-FM implementation. This report captures lessons learnt by local and central government. We have an opportunity in the next five years to build on this work.

## Where to for the next five years

This national themes report, as well as the 16 regional summaries, recognises the considerable progress New Zealand has made towards improving freshwater management over the previous five years, but it also identifies many areas where work is needed to address ongoing challenges. These include recommendations for individual councils. The following provides a general sense of the course of action required over the next five years to improve implementation of the NPS-FM.

### Suggested areas of focus for regional councils

#### *Implementation progress*

- Implement the NPS-FM as quickly as practicable and focus attention on water bodies that are most vulnerable or under the greatest resource pressure as a priority.
- Provide regular updates to the wider community about NPS-FM implementation progress.

### *Achieving the objectives of the NPS-FM*

- Better communicate the implications of their policies for waterways, including if there are any lengthy lag times for seeing improvements.
- Publicly outline where interventions are planned or in place that will improve the health of waterways (including the costs of interventions, timeframes and how those costs would fall).
- Work with the community to ensure that plans are implemented and changes are made on the ground to ensure that outcomes are being achieved.

### *Engaging with the community*

- Ensure that engagement processes represent, as much as possible, the various interests and groups in the catchment and that all participants get a chance to contribute.

### *Monitoring and enforcement*

- Monitor implementation and report on progress towards outcomes. Undertake effective compliance, monitoring and enforcement to check compliance with the rules, and take appropriate action when non-compliance is detected.
- Develop plans that are 'agile' and ensure a procedure is in place to deal with things that are likely to change.

## **Suggested areas of focus for government departments**

### *Implementation progress*

- Outline their firm expectations that the NPS-FM be implemented, using the process outlined in Part CA, as quickly as practical.
- Work with councils that have made the least progress (Auckland, Southland and Taranaki) to speed up implementation.
- Facilitate the sharing of 'what works' between regions and help councils to make the public aware of successful initiatives.

### *Monitoring and evaluation*

- Undertake a rolling assessment of implementation, focusing on several councils per year, to evaluate the objectives and limits set, how they are managing land use within limits and whether we are likely to see outcomes achieved in terms of improving the state of our waterways.
- Identify further metrics to collect on NPS-FM implementation. These may include metrics like council expenditure on water management (including community engagement, monitoring, compliance, enforcement), water use or how consents are being allocated (for water takes, land use and discharge of contaminants).
- Work with regional councils to develop more and better support for compliance monitoring and enforcement, including by providing guidance on best practice.

### *Support and guidance*

- Better understand issues that iwi and hapū face around the country, and build stronger working relationships.
- Raise territorial authority awareness of their obligations under the NPS-FM, including the effect that regional council limits may have on three waters infrastructure.
- Consider how best to support infrastructure upgrades needed to maintain or improve urban water quality, whether in large or small centres.
- Clarify how environmental, economic and social goals align between different national directives.
- Continue to invest in models such as OVERSEER® so that all councils and sector groups can use them to model and regulate nutrient losses accurately across all soil and climatic zones.
- Make sure that material supporting national direction is timely, readily available, easy to use and easy to find.

### **Suggested areas of focus for both regional councils and government departments**

#### *Information*

- Produce easy to understand reports and/or media explaining how water quality and quantity data are gathered and used.
- Ensure that all publicly (or ratepayer) funded environmental data and reports are made freely available for use by all and in a timely manner.
- Ensure that water quality and quantity data and their presentation are nationally consistent.

#### *Engaging with iwi and hapū*

- Develop and support formal relationship agreements between councils and tāngata whenua.
- Work with iwi and hapū to encourage, resource and upskill under-represented iwi groups.
- Work with iwi and hapū to further regional council and central government staff understanding of te ao Māori and develop methods to ensure tāngata whenua views are reflected more accurately in plans.
- Work with iwi and hapū to develop and make available measures of Māori cultural values and input of mātauranga Māori.

#### *Engaging with territorial authorities*

- Address urban water quality and use as a priority, and work together to understand the implications of limit setting on territorial authority infrastructure and the likely cost implications for ratepayers.
- Help urban communities understand the effect they have on water quality and what they should do to improve it.

# What is the National Policy Statement for Freshwater Management?

The NPS-FM, first introduced in 2011, is part of the Government's ongoing reforms to improve the way that fresh water is managed, in recognition of its importance to New Zealanders.

Giving effect to the NPS-FM requires councils to set objectives and limits for freshwater quality and quantity, and to ensure that land use and water are managed in an integrated way. It requires that iwi and hapū be involved in freshwater management and their values reflected in decisions about the management of fresh water. Water quality must also be maintained or improved within a region to give effect to the NPS-FM.

In 2014, the Government substantially amended the NPS-FM, including the addition of a process called the National Objectives Framework (NOF) as recommended by the Land and Water Forum. The NOF established compulsory national values for fresh water and included a set of national bottom lines for attributes of water quality relevant to the national values, such as total phosphorus, nitrate and ammonia toxicity, dissolved oxygen and a faecal indicator (*Escherichia coli*). These are listed in appendix 1 and appendix 2 of the NPS-FM respectively. The 2014 amendments also brought in a requirement to have regard to the connections between freshwater bodies and coastal water when establishing freshwater objectives. Following a public consultation process earlier this year, a second round of amendments is being made in August 2017.

The primary responsibility for implementing the NPS-FM lies with regional and unitary councils, which must give effect to the NPS-FM in their planning documents, report on their progress and fully implement it no later than 31 December 2025.

The full text of the NPS-FM is available on the [Ministry for the Environment website](#).

# Methodology for the 2016 review

The preamble of the NPS-FM states that the Minister for the Environment intends to seek an independent review of the implementation and effectiveness of the NPS-FM no later than 1 July 2016. The Minister sought a review that would provide a snapshot of progress with NPS-FM implementation including:

- the current state of the major water catchments across New Zealand
- council progress towards implementing the requirements of the NPS-FM
- a commentary on the likely outcomes and effectiveness of council implementation, and how their current approaches compare with the requirements of the NPS-FM and the Resource Management Act 1991 (RMA).

The third point is the most challenging to address, due to the early stage most councils are at in implementation. Many of the environmental improvements will take a number of years or even decades to be detected in water monitoring, due to lag times of contaminants through catchments and the need to establish long-term trends. This report looks at the processes under way in each region as an indicator of likely effectiveness.

The information and analysis within this review are based on evidence collected via questionnaires completed by each of the regional authorities, interviews and panel discussions with relevant parties, and regional planning documents.

During visits to each region, the review team conducted a series of interviews and panel discussions with council executives and elected councillors, senior council staff, and iwi and stakeholder representatives. Following each meeting, attendees were given the opportunity to revise or supplement the meeting notes to ensure their views were recorded accurately. In general, participants in our regional tāngata whenua and stakeholder panels had been personally involved in regional water management discussions or collaborative groups. These participants did not necessarily speak with mandate as official representatives of their iwi or organisation, nor are they presumed to represent all in their wider communities. They were, however, primary sources with direct experience of the councils' work.

Iwi and hapū panel participants were identified through the Water Directorate's existing relationships, their membership on committees or collaborative groups, recommendations from councils or official iwi contact addresses.

Regional stakeholder panels represented a range of interests including other central government agencies, territorial authorities, environmental organisations, power generators, tourism, forestry and agriculture sectors. Additional interviews and panel discussions were held at the national level with representatives from national sector organisations.

Although we endeavoured to invite representatives from all groups involved in each region, not all attended our panel discussions. In other areas, we heard from some but not all iwi or stakeholder sectors.<sup>1</sup> We recognise this as a significant limitation of our review, particularly given the complexity of iwi and hapū relationships and the influence of Treaty of Waitangi settlement arrangements on freshwater management in some regions. In areas where groups were not represented, the review has relied on the Water Directorate's ongoing conversations and relationships in the regions and on data collected for previous reports and reviews.

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<sup>1</sup> See the regional reports for more information about panel discussion participants in each region.

# Context for freshwater management

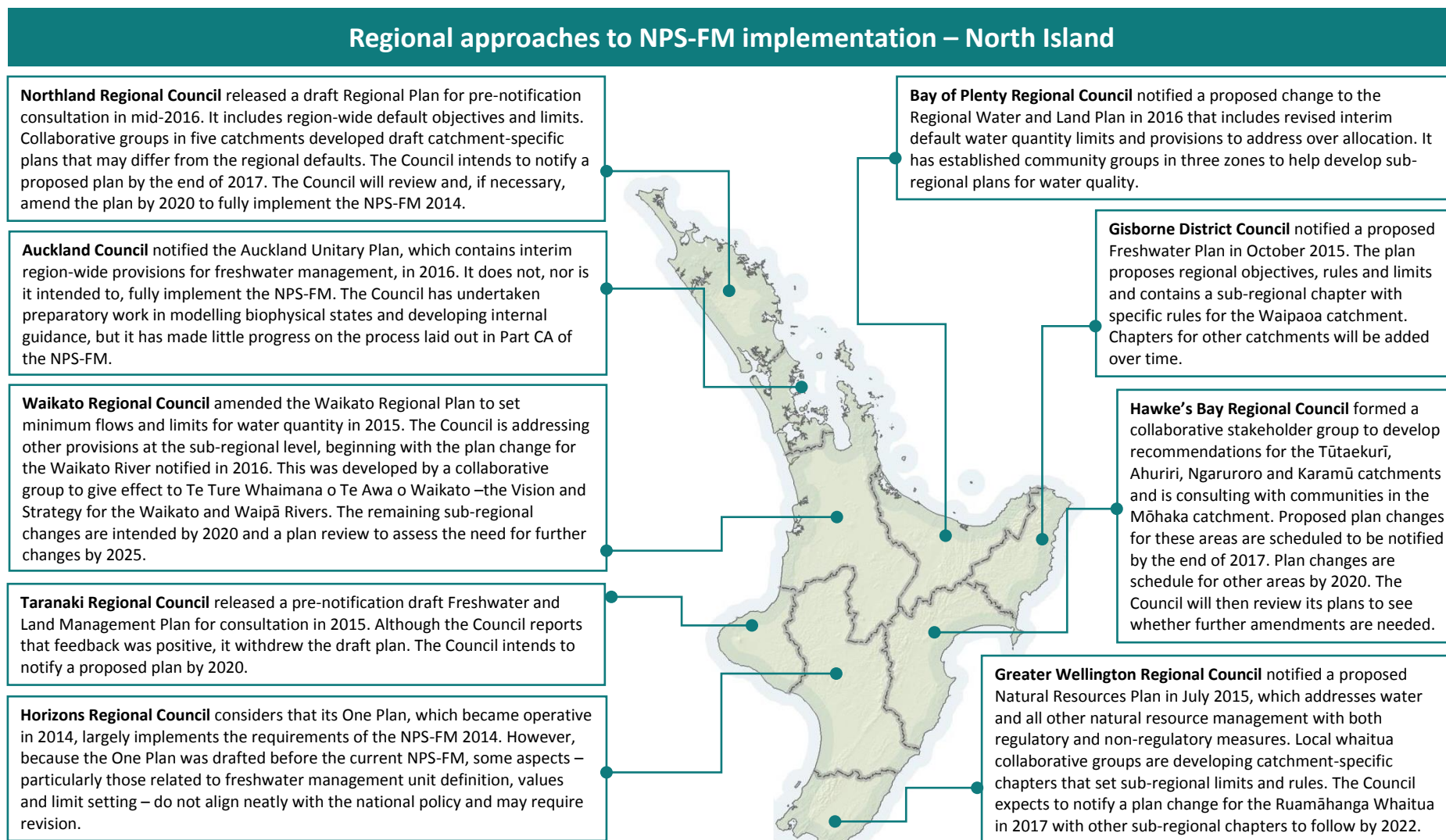
Every regional authority in New Zealand faces different circumstances and complexities. While the concept of establishing freshwater objectives and limits in regional plans may appear relatively straightforward, councils face significant challenges including:

- getting representative and effective involvement of:
  - iwi and hapū, particularly in complex cultural environments
  - stakeholders or community representatives who can contribute to the process and reach an effective outcome
- gathering sufficient scientific and cultural data to enable decision-making, including developing complex technical flow and contaminant models, investigating mitigation options, developing cultural indicators and assessing economic implications
- developing mechanisms to test the implications of different management scenarios and being able to communicate these to decision-makers and the community
- translating values and objectives that have been established through various engagement processes into efficient and effective regional plan rules and non-regulatory interventions
- preserving the integrity of the intended outcomes through the planning process that is prescribed in Schedule 1 of the RMA
- developing council capacity and capability and undertaking scientific and economic research on which decisions are based, conveying this information to the community, facilitating discussions, translating outcomes into plans and trying to implement plans on the ground
- implementing, monitoring and enforcing the plan requirements
- monitoring the outcomes and effectiveness of plans, particularly where measurable change may take a long time.

The above process is often undertaken in complex natural, social, cultural and economic environments. Inevitably, diverse, and often competing, stakeholder and community values and expectations and significant resource management conflicts arise. Where resources are over allocated, hard choices need to be made in terms of outcomes, costs, timeframes and, in some cases, business viability or environmental effects.

In nearly every instance, councils have advised that freshwater management was their number one priority (in many cases, this was also associated with inshore coastal waters). However, catchments differ in terms of issues, community expectations and potential solutions. There is no 'one size fits all' approach to NPS-FM Implementation, and this applies between, and often within, regions (figure 1). It is also worth noting that NPS-FM implementation takes place in the context of decades of freshwater management decisions predating the NPS-FM.

Figure 1: Summary of regional council NPS-FM implementation approaches



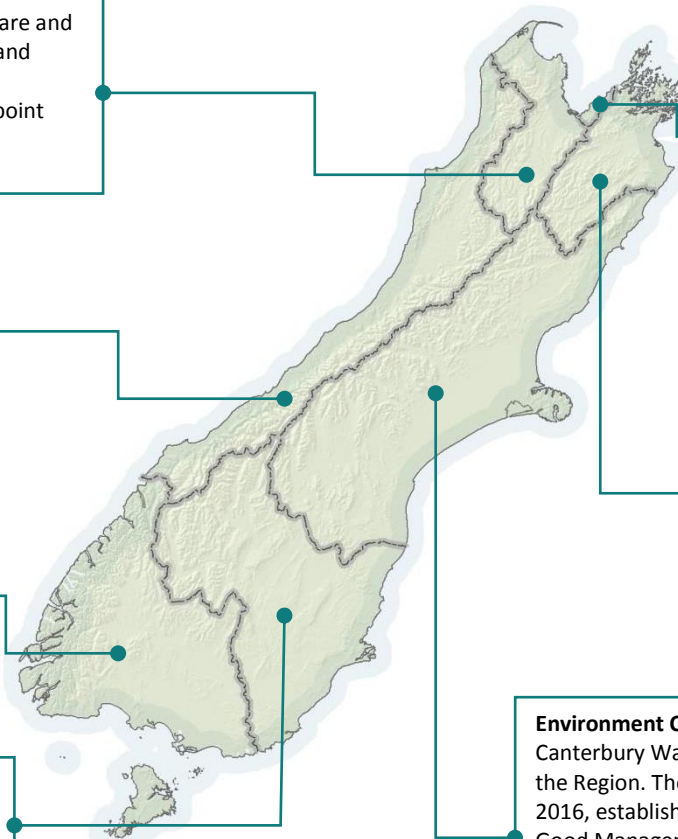
## Regional approaches to NPS-FM implementation — South Island

**Tasman District Council** established advisory groups to prepare and recommend to Council draft provisions for the the Waimea and Takaka catchments, including policy and rules in the Tasman Resource Management Plan. Implementation steps involve point discharge allocation limits by 2018 and urban catchment management plans by 2020.

**West Coast Regional Council** considers the existing regional plan met the requirements of the NPS-FM 2011, but needs to undertake work to implement 2014 amendments. Though the council intends to address implementation on a catchment by catchment basis, it has not yet prioritised catchments or established a timeline for planning.

**Environment Southland** notified a proposed Water and Land Plan in 2016, which established policies, objectives and some general rules for freshwater management, but this does not address limits or allocation on an FMU basis. The Council will address limit setting and specific rules in each FMU, beginning with Fiordland and the Islands.

**Otago Regional Council** notified Plan Change 6a in 2014 to address water quality, focussing on controlling diffuse discharges. Water quantity will be addressed by 2021 when historic mining rights expire.



**Nelson City Council** issued a pre-notification draft Regional Policy Statement in 2016. The Council intends to complete a second round of public comment in 2017. The Council is also reviewing all existing planning documents to develop a combined single resource management plan, the Whakamahere Whakatū Nelson Plan, which would address the requirements of the NPS-FM by 2020.

**Marlborough District Council** notified the Marlborough Environment Plan in June 2016, combining multiple plans to create a single resource management document for the district. Council aim to have the Plan operative in 2018. To cater for over-allocation, Council plans to introduce a water transfer system via an online tool, which is currently being developed. Plan changes implementing catchment limits for quality will be progressed before 2025.

**Environment Canterbury's** freshwater management is driven by the Canterbury Water Management Strategy, which sets objectives for the Region. The revised Land and Water Regional Plan, notified in 2016, established regional rules for freshwater, including the Matrix of Good Management. Ten Zone Committees, joint committees of the regional council and territorial authorities with community representatives, have been established to develop location-specific Zone Implementation Programmes (ZIPs), including quantity and quality limits and non-regulatory work programmes.

# 1 NPS-FM implementation progress

Regions have taken different approaches for their National Policy Statement for Freshwater Management (NPS-FM) implementation programmes. Deciding how to address implementation usually starts with dividing up the region into management units or zones, and prioritising those in which to begin the implementation process.

## Region-wide versus catchment-specific approach

Several councils are addressing NPS-FM implementation primarily at the regional level or have put in place region-wide freshwater provisions as an interim measure in advance of more detailed plans for management units or zones. In many regions, the region-wide plan change sets regional objectives for water quality, while catchment-specific limits are to be added in staged plan changes (figure 2). This ensures that objectives and limits are in place. Examples include: the Land and Water Plan in Canterbury, where chapters are added for more specific rules based on zone committee recommendations; Southland's Proposed Water and Land Plan, where sections will be added for freshwater management units (FMUs); the Unitary Plan in Auckland; and the Proposed Natural Resources Plan for the Wellington Region, where whitua committees (collaborative groups) will make recommendations for their areas. In contrast, some councils have chosen to work primarily on a catchment-by-catchment basis.

## Priorities for implementation

Because of the scale and complexity of implementing the NPS-FM, councils have generally had to prioritise their efforts towards certain sub-regional zones of FMUs. This is generally shaped by the degree of resource pressure in each area, the availability of scientific research and monitoring data, whether local iwi have completed Treaty of Waitangi settlements and what obligations those settlements may impose on the council.

Most councils have chosen their most challenging catchments to work in first, in terms of resource management issues, conflicts or pressures, including:

- Gisborne (Waipaoa)
- Waikato (Waikato and Waipā)
- Greater Wellington (Ruamāhanga)
- Bay of Plenty (Rotorua Lakes)
- Northland (priority catchments including the Whangarei Harbour)
- Canterbury (Selwyn and Te Waihora/Lake Ellesmere).

» Different regional contexts may require different approaches. «

Stakeholders we spoke to often endorsed this approach, saying it was important that councils focused their efforts on hotspots, especially where there are sensitive receiving environments or looming allocation issues.

Environment Southland has taken the opposite approach and prioritised Fiordland and the Islands for NPS-FM implementation. The Council made the deliberate decision to progress this

pristine area first because it believes the area faces the fewest pressures and will have less complex social and economic interactions to complicate planning. Starting with the Fiordland and Islands area will allow Environment Southland to test its planning process before rolling it out across the region and give the Council time to gather scientific and economic information for limit setting in other areas.

Some councils have taken an aggregating approach to determining management units or zones; others have subdivided the region to a much greater extent. This means that the number of FMUs in one region can vary from around two to five, to dozens in other regions. Some councils have divided their region by catchment boundaries or geophysical characteristics while others have placed more influence on social and political boundaries. These different approaches to FMUs are appropriate given the differences in the physical environments from region to region and differing pressures.

For example, Environment Canterbury has split the region into 10 zone committees, which make recommendations on objectives and limits for their zone. Within those 10 zones may be multiple FMUs for different water-body types. Wellington has taken a similar approach with its five whitua committees or collaborative groups. Each of these five whitua committees will have multiple FMUs defined by the committee. In contrast, Environment Southland defined five FMUs before establishing its engagement approach. It is looking at establishing multiple 'sub-FMUs' within them. Northland has proposed to set FMUs based on geophysical characteristics rather than catchment or socio-cultural boundaries and to have differing FMUs

for quality (two for classes of rivers: hill rivers and lowland rivers) and quantity (four for different classes of rivers and their associated catchments: rivers in warm wet areas, small inland rivers, coastal rivers, large rivers).

▶▶ Few councils have made urban water quality a priority. ◀◀

A common theme we have observed is that many councils are not addressing urban water quality as a priority in terms of the National Objectives

Framework (NOF) process (Policy CA2 of the NPS-FM). Many councils have prioritised rural catchments over urban catchments, including in regions that have some of our largest cities, such as Auckland, Tauranga, Wellington and Christchurch.

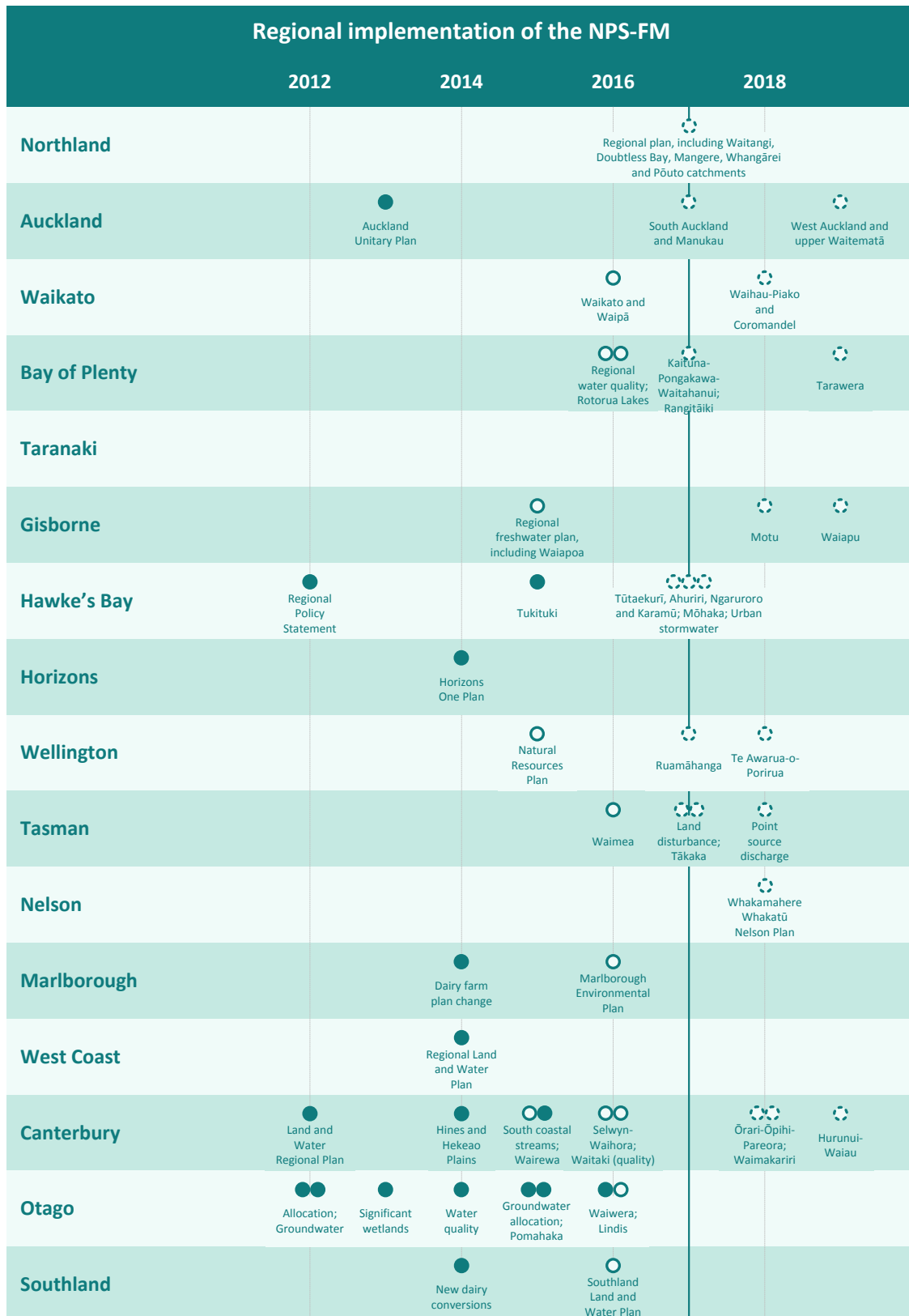
Reasons identified for this include the difficulties of engaging with large urban communities not directly connected to a particular waterway, as well as the technical challenges associated with managing urban waterways under a limits regime.

## Overall NPS-FM implementation progress in regions





Some councils have moved quicker than others to prioritise catchments and establish engagement approaches to work through the NOF. These councils have typically chosen this approach to address urgent water issues or to take advantage of existing work or planning cycles. In contrast, other regions are waiting, often trying to fill gaps in scientific, social or economic knowledge before determining how they will set objectives and limits for each of their FMUs, catchments or zones.

▶▶ Councils that have moved the quickest have done so to address urgent water issues or to take advantage of existing work or planning cycles. ◀◀

**Figure 2: Summary of regional council progressive implementation programmes publicly notified before 31 December 2015 as required by Policy E1 of the NPS-FM**



Regional implementation of the NPS-FM						
2020	2022	2024	2026	2028	2030	
		Further plan changes if required	★			
Central isthmus, East Auckland and Hauraki; Hauraki Islands	North Auckland, Kaipara and Mahurangi; Further plan changes if required		★			
West Coast		Further plan changes if required		★		
Tauranga Harbour	Rotorua Lakes; Ōhiwa and Waioatahi; Whakatāne and Tauranga	Waioeka and Ōtara; East Coast		★		
Regional freshwater and land management plan	★					
Waimata-Turanganui; Uawa	Hangaroa-Ruakituri	Coastal rivers	Southern rivers; Northern rivers	★		
Esk-Tutira, Wairoa, Pōrangahau and Southern coast		Further plan changes if required	★			
		Further plan changes if required		★		
Plan changes resulting from two further whatiua processes	Plan change resulting from the final whatiua process		★			
Motueka; Wetlands; Urban catchments	Aorere	Buller River	Abel-Tasman, Mārahau and Moutere		★	
★						
		Catchment limits; Wairau Aquifer minimum flow		★		
<i>West Coast Regional Council considers that most requirements of the NPS-FM are satisfied by the current Regional Land and Water Plan; however, they intend to add additional catchment chapters following stakeholder consultation processes.</i>			★			
Ashburton-Rākaia; Kaikōura	Christchurch-West Melton	Waitaki (quantity); Further plan changes if required		★		
<i>Otago Regional Council considers that the current Regional Plan: Water satisfies the requirements of the NPS-FM.</i>			★			
<i>Environment Southland is currently reviewing its Progressive Implementation Programme and intends to notify a revised programme in 2017.</i>						

-  Intended date to notify proposed plan or plan change
-  Notified proposed plan or plan change undergoing Schedule 1 processes
-  Plan or plan change fully operative (final beyond all appeals)
-  Implementation complete (assumes two years from date of notification for appeals)

Councils that have made the most progress towards implementing the NPS-FM include Horizons, Canterbury, Waikato and Otago. Reasons why this group has made more progress than others relate to the context preceding the NPS-FM.

- Horizons Regional Council made significant progress with its One Plan, which pre-dates the NPS-FM and addresses water quantity and quality in the region. This review of regional water management was driven by 2004 flooding events as well as public concerns over the state of water quality in rivers.
- Otago Regional Council set default water quality limits across the region with its Regional Plan: Water. This was done as part of its 10-year plan review, which was already under way when the NPS-FM came into effect.
- Environment Canterbury's progress has been driven largely by the Canterbury Water Management Strategy, which it had committed to implementing before the 2011 NPS-FM. This has meant that some of the 'mechanical' requirements for implementation, such as its zone committees, were already established or planned. Its progress has been helped by the actions taken by government-appointed commissioners and a streamlined planning process that reduced appeal rights to the Environment Court following the hearings process.
- Waikato Regional Council has made significant progress in its two largest catchments, Taupō (which had water quality limits set before the NPS-FM) and more recently in the Waikato and Waipā catchments. Progress on the latter catchments has been driven by Te Ture Whaimana o Te Awa o Waikato – the Vision and Strategy for the Waikato River, which Waikato Regional Council must give effect to in its regional plan because of Treaty of Waitangi settlement legislation.

Both Otago and Horizons say they need to review their existing plans to ensure they give effect to the NPS-FM, particularly the 2014 amendments. Stakeholders in Otago questioned the regional default limit-setting approach for water quality that had been used, saying that there is a lot of variation within the region, and what works in one place may not work in another.

Councils that have made the least progress in implementing the NPS-FM through the process specified by Part CA include Auckland, Southland and Taranaki. Reasons for slower progress also vary. Auckland has been in a population boom, with an associated focus on housing affordability and provision of infrastructure. It has also had the intensive Unitary Plan process, which follows on from the amalgamation of previous councils in Auckland. The Unitary Plan sets interim region-wide policies and rules relating to fresh water but not more detailed catchment-scale objectives and limits. Taranaki Regional Council said it is taking a cautious approach because feedback received on its draft plan indicated several areas where further investigations and engagement with stakeholders was required to implement the NPS-FM. The Council expects to have a revised version notified around 2020. As mentioned earlier, Environment Southland is undertaking extensive background work to ensure it has the necessary scientific and technical data and community engagement processes in place.

Northland and Gisborne have both made steady progress, despite having fewer resources than other councils. Gisborne notified its Regional Freshwater Plan in 2015, and Northland released a draft Regional Plan in 2016. However, the review identified concerns from iwi and hapū about whether the planning processes in these regions have given full effect to requirements in the NPS-FM.

## Conclusion: findings and where to next

Regional council progress implementing the NPS-FM varies across the country; many councils have made good progress to identify objectives and set limits. However, and not unexpectedly, no council has implemented the NPS-FM in its entirety.

Some councils have made good progress through the implementation process including Horizons, Canterbury, Waikato and Otago. Others, however, have made much less progress.

Regional councils cannot wait around to gather information while waterways continue to decline. Putting such problems off will not make their resolution easier and simply exacerbates the environmental problem. To do so is to fail to implement the NPS-FM and to undertake statutory functions.

Region-wide default limits are appropriate in some situations and can help ensure that action is being taken while catchment-specific provisions are still being developed – but they may not be appropriate where the total of catchment inputs on particular water bodies is not understood.

### Priority areas of focus for the next five years

- Government departments need to outline their firm expectations that the NPS-FM be implemented, using the process outlined in Part CA, as quickly as practical. This is even more important where there is significant resource pressure and water bodies are vulnerable.
- While the initial focus has been on the impact of primary sector activities on water quality and quantity, it is time for councils and the Government to address urban water quality and use as a priority.
- Taranaki Regional Council, Environment Southland and Auckland Council need to prioritise engagement processes and subsequent plan changes to implement the NPS-FM. The Ministry for the Environment has offered to work with and support these councils as they undertake this process.

### Additional areas of work

- As part of their implementation programme, Otago Regional Council should assess whether its region-wide limits are sufficient to achieve freshwater objectives in individual catchments and waterways.

## 2 Achieving the objectives of the NPS-FM

The primary objectives of the NPS-FM are to safeguard ecosystem and human health, maintain or improve water quality, progressively phase out over allocation (of both quality and quantity) and provide for Te Mana o Te Wai.<sup>2</sup> To accomplish this, the NOF directs regional councils to:

- identify the values associated with each FMU, including the two compulsory national values listed of ecosystem health and human health for recreation
- determine which attributes must be managed to protect and enable those values, including the attributes listed in appendix 2 of the NPS-FM
- formulate objectives and limits for each attribute in each FMU.

Communities are placing increasingly high priority on improving water management. New Zealanders express aspirations for water that is safe for swimming and gathering of mahinga kai and supports healthy ecosystems. Regional councils and the stakeholders who are being asked to make changes often share these aspirations but are concerned about the practical realities of achieving them. Some councils believe that the NOF process, which directs councils and communities to begin by identifying values and objectives – without having first discussed the practical implications of management options – leads them towards goals that are unobtainable. Councils are in the difficult position of balancing the changes necessary to achieve environmental objectives against the need to preserve the social and economic well-being of their regions.

Often, **water quantity limits**<sup>3</sup> for surface water bodies and aquifers have been settled either in the first or second generation of RMA plans, and are largely not re-litigated unless the catchment is over allocated.<sup>4</sup> If a council has catchments where limits do not presently exist, they are often setting region-wide interim default limits to ensure every water body has some form of limit in place.

Limits for water quality, however, were less common before the NPS-FM, so the planning processes must start fresh. Most plans currently being developed propose to set **limits for water quality**<sup>5</sup> on a management unit or zone basis, mostly through a process involving a consultative or collaborative group.

Setting water quality limits is generally considered more difficult than quantity limits because the idea of calculating limits and allocating nutrients is a newer concept in freshwater management and involves attributes that may be difficult to quantify or measure. Setting

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<sup>2</sup> The NPS-FM recognises the national significance of fresh water and Te Mana o Te Wai. Te Mana o te Wai represents the innate relationship between te hauora o te wai (the health and mauri of water) and te hauora o te taiao (the health and mauri of the environment) and their ability to support each other while sustaining te hauora o te tāngata (the health and mauri of the people).

<sup>3</sup> For freshwater quantity, a limit defines how much water can be taken and when and, therefore, how much water must remain to continue to meet a freshwater objective.

<sup>4</sup> Over allocation is the situation where a resource:

- 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.

<sup>5</sup> For freshwater quality, the assimilative capacity of the water (its ability to absorb contaminants) is the resource being limited. A quality limit would describe how much of a contaminant (eg, a nutrient) could be discharged into the water by users without exceeding a freshwater objective.

water quantity limits is seen as more of a technical exercise based on experts using tools such as ecological habitat and flow models. In contrast, quality limit setting is more values driven. Councils often have better datasets on flows and uses of fresh water than they do on diffuse sources of contaminants and the cumulative effects on water quality.

## Water quantity limits and allocation

Water quantity allocation limits and minimum flow levels have generally been set for most of the country or processes are under way to set them where they have not (figure 3).

The NPS-FM requires councils to avoid over allocation and to phase out existing over allocation, where it exists. Over allocation in terms of water quantity means that permitted and consented water takes exceed the amount that is sustainable for the water body.

Councils' own assessments indicate that over allocation is relatively widespread. In some cases, over allocation has occurred because the initial allocation process was based on incorrect assumptions in the absence of sufficient technical information.

**Figure 3: Water quantity limits set around New Zealand (blue indicates where minimum flow or level and limit on allocation is set in a plan or water conservation order)**



An accurate national assessment of over allocation across the country is difficult for several reasons,<sup>6</sup> but many councils have catchments they know to be over allocated, for example: the Waimea and Moutere surface waters in Tasman, the Poverty Bay Flats in Gisborne, several sub-catchments in Canterbury and various rivers in Otago due to historical water takes for mining. Water allocation is known to be an issue in Northland, but the Council reports that

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<sup>6</sup> This is challenging for several reasons including: the different methodologies used around the country to set limits; differing units between allocation limits and consents; minimum flows being defined as a percentage of a mean annual low flow but without having flow records; and exceptional circumstances, such as large emergency drinking water consents that make catchments look over allocated but have never been used.

information gaps for takes and river flows make an accurate assessment challenging. Other regions say they have catchments that are reaching allocation limits, including the Tukituki in Hawke's Bay, the Moutere groundwater zones in Tasman, the Rai Valley and some southern streams in Marlborough, and parts of Wairarapa.

In several catchments, the total consented volume of water exceeds limits but actual use does not. This 'paper over allocation' prevents others from accessing the resource. In these cases, councils are trying to reduce and restrict (or 'claw back') this over allocation from existing consent holders to match reasonable needs. In general, councils review allocations when consents come up for renewal or expire. Most councils are reluctant to use consent condition review provisions in the RMA during the term of a consent, due to real or perceived legal risk (eg, the requirement for them to demonstrate adverse effect of individual consents) or resource constraints. An alternative is to encourage the transfer of water consents between users, often through the use of cooperative water user groups that manage allocation within the group themselves.

▶▶ Better science and accounting suggests over allocation may be relatively widespread, but the solutions have their own challenges. ◀◀

Another option to address over allocation is to increase the amount of water available through storage and, therefore, improve the reliability of supply. This could include land owners increasing their on-site storage capacity. Aside from the significant regulatory and legal requirements to get large infrastructure projects under way, irrigator uptake and funding is proving a challenge in many cases (eg, Ruataniwha, Wairarapa, Lee Valley), despite central government support. These projects also tend to be controversial due to potential environmental risks from resulting intensified land uses and the perceived conflict of interest between the regional councils acting both as regional development agencies and environmental regulators.

## Water quality limits and allocation

Quality over allocation means that water bodies have been degraded by human activities, predominantly contaminant discharge,<sup>7</sup> that has caused water quality to decline below a level that provides for community values and ecosystems.

While many councils have managed to reduce the adverse effects of point-source contamination (eg, a pipe coming out of a wastewater treatment plant or from a farm's effluent holding pond directly into a river), management of the cumulative adverse impacts of 'diffuse' or 'non-point source' contamination from land use is more of a challenge (eg, diffuse source effluent from livestock, contaminants in urban stormwater runoff or leaks from ageing wastewater infrastructure). This is because they are harder to measure and manage. Individually these may have a small impact, but collectively they can have a huge impact.

▶▶ Setting water quality limits and allocation is complex – and made more so by differing interpretations of the NPS-FM requirements. ◀◀

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<sup>7</sup> The three major contaminants that affect water quality in New Zealand are sediment, pathogens and nutrients (nitrogen and phosphorus). For more information, see [Our Fresh Water 2017](#) on the Ministry for the Environment website.

Councils have interpreted 'limit' quite differently in the context of quality under the NPS-FM. Some councils have interpreted it as a catchment load limit (eg, tonnes per year) or property level load limit (eg, kilograms per hectare per year), while others have interpreted it as an in-stream contaminant concentration. Although neither central Government nor the courts has been directive about the correct interpretation, the former interpretation of limit as a load is more consistent with the intent of the NPS-FM and the ability to allocate assimilative capacity explicitly.<sup>8</sup> Loads are also more relevant when considering the impact on receiving environments like inshore coastal waters.

The ability to allocate some contaminants at a property level has only been made possible in the past few years with the development of modelling tools, such as OVERSEER® and the Catchment Land Use for Environmental Sustainability model (CLUES). While not perfect, these tools allow councils to better understand sources of contaminants in a catchment and to set limits so that the sum of the discharges does not exceed the desired total load the catchment can handle and, therefore, achieve the desired water quality outcomes.

"If you are spending it all on managing nutrients because you have to, you're not spending it on managing sediment."

In areas where nitrogen load limits have been proposed or set (see figure 4), councils and communities have chosen different initial allocation methods including equal allocation (Otago), sector average (Rotorua), 'grand-parenting' – also known as allocation based on existing individual discharges (Taupō), and based on natural capital (Land Use Change-based in Horizons and Tūkituki, although not a general requirement in the latter). In Canterbury catchments where limits have been set, initial allocation tends to be a negotiated mix of reductions from a defined 'good management practice' level of discharge, flexibility caps and provision for irrigation schemes.

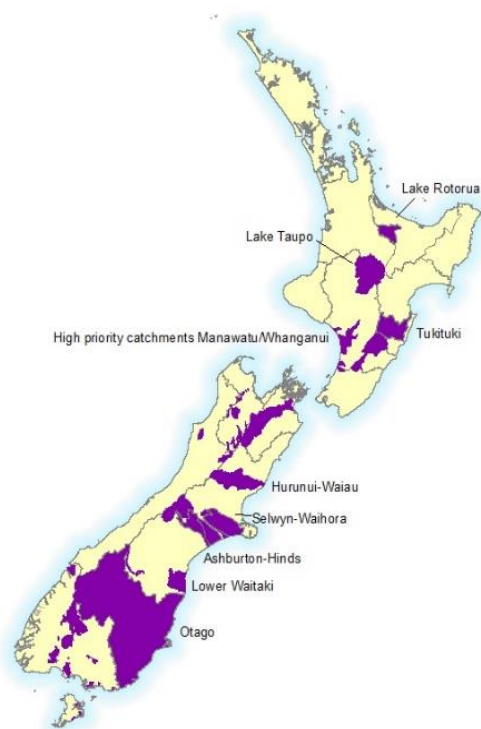
Where nitrogen is an issue but councils do not have necessary information to set discharge limits, this has been delayed (eg, Waikato River and Waipā River catchments and Southland). Both councils have a process in place to collect the required information in advance of a limit-setting programme.

Some councils expressed frustration about the perceived national focus on the dairy industry and on setting nitrogen limits because they do not consider these to be the highest priority in their regions. For example, erosion and sediment were identified as the main freshwater management issues in regions such as Northland, Gisborne, Hawke's Bay and Marlborough. The NPS-FM requires councils to set limits for all attributes relevant to the values identified in an FMU, regardless of whether they are listed in appendix 2 of the NPS-FM. However, several councils report that the presence of the attributes in appendix 2 requires these to be addressed as a priority (because this is what a council would be measured on). This pressure inevitably shifts the focus of actions to these attributes, which may not be the most effective use of resources or achieve the best outcomes for the region.

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<sup>8</sup> See: [A guide to the National Policy Statement for Freshwater Management 2014](#).

**Figure 4: Nitrogen allocation regimes in place around New Zealand (includes water conservation orders where water body is to be kept in natural state)**



## Integrated management

The NPS-FM promotes an integrated whole of catchment approach to water management:

To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.

It is important that councils take an integrated approach to managing contaminants that originate from the land, pass through the freshwater system and arrive in the ultimate receiving environment in coastal waters. Many catchments in New Zealand have an estuary or harbour at the bottom. They should be managed in concert with rivers, lakes, wetlands and groundwater.

Estuaries are defined as ‘coastal water’ in the RMA and covered by the New Zealand Coastal Policy Statement rather than by the NPS-FM, which applies only to ‘fresh water’. However, the NPS-FM requires councils to manage the effects of land and fresh water on coastal water. The New Zealand Coastal Policy Statement contains an objective for maintaining coastal water quality and improving it where it has deteriorated to the point of causing significant adverse effects. It does not contain a framework for setting objectives and quantitative limits. Nor does it specify national bottom lines for estuaries.

Hui participants we spoke to often referred to the concept of ki uta ki tai – Tangaroa covers all waters from the mountains to the sea. This was echoed by staff in many regional councils. Southland advised that most of its main rivers end in an estuary, so management of the estuaries reaches up into the catchments. Northland said that sediment in fresh water is its priority issue mainly because the sediment often ends up in sensitive coastal environments.

However, councils face practical challenges in accomplishing integrated management. For example, Gisborne says that the push for better freshwater management has drawn resources away from planning or work programmes in other domains. It can also be challenging to align regional planning with district or city planning, which may operate on different cycles.

## Conclusion: findings and where to next

The New Zealand public has high expectations for improvements to freshwater quality. However, these expectations do not always come with a detailed understanding of the underlying causes of the current freshwater state or of important regional contexts. Communities need to understand the time it takes to improve water quality and quantity and how this varies across the country. The politicisation of water and the community's aspiration for 'swimmable' water mean that there is a pressing need to have honest conversations about what is achievable, what changes would be necessary and what effects those changes are likely to have.

Over allocation of water quantity is a common problem, but it is difficult to assess precisely how serious the issue is. Because the final stage of the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 came into effect in November 2016, and as councils develop better research data about their waterways, our understanding will improve and allow councils to manage water quantity more effectively. Water quantity limits and minimum flows and levels have been set across most of the country, and councils are trying to reduce over allocation by 'clawing back' paper allocation and supporting water storage schemes. These efforts, however, come with their own challenges and risks.

Addressing limits for water quality has proven far more of a challenge for councils. While point source discharges are relatively easy to control, councils have difficulty quantifying and then managing diffuse discharges from land activities. In the absence of specific national direction, councils have interpreted water quality limits differently, which has implications for how they manage diffuse discharges. While we acknowledge that current models are imperfect and that in-stream concentrations are easier to measure, we believe that setting limits in terms of load is more consistent with the intent of the NPS-FM and necessary for explicit and effective allocation.

Integrated management from source to sea is an important principle of the NPS-FM, but discussions about freshwater water quality and the quality of coastal receiving environments, such as river mouths and estuaries, have identified a lack of information about these areas. This research should build on recent work undertaken in partnership between regional councils and central government on the effects of contamination from land and fresh water on coastal environments in Auckland and Northland (including Whangarei and Kaipara harbours).

### Priority areas of focus for the next five years

- Regional councils need to communicate the complexity of freshwater systems and the implications of their policies for waterways, including if there are any lengthy lag times for seeing improvements. The community needs to be confident that there is a plan to implement actions and that there are milestones to detect improvements. Otherwise, the risk is that there will be a perception that their response is inadequate.
- To help discussion, regional councils should publicly outline where interventions are planned or in place that will make waterways more swimmable in their regions. This should include the costs of interventions, timeframes and on how those costs would fall.

- Easy to understand reports and or media explaining how water quality and quantity data is gathered and used should be produced for public use.
- Central government, in consultation with councils and stakeholders, will continue its work to develop better options for freshwater allocation, enabling councils to address issues of over allocation and increase sustainable social and economic well-being.

#### **Additional areas of work**

- The owners of models such as OVERSEER® should consider further investment in their models so all councils and sector groups can better model and regulate nutrient losses across all soil and climatic zones.
- Regional councils and the Government should continue to commission research into the effect of sediments and nutrients on coastal environments.
- Councils and the Government must ensure that all publicly (or ratepayer) funded environmental data and reports are made freely available for use by all.
- The collection and reporting of water quality data and presentation should be nationally consistent.

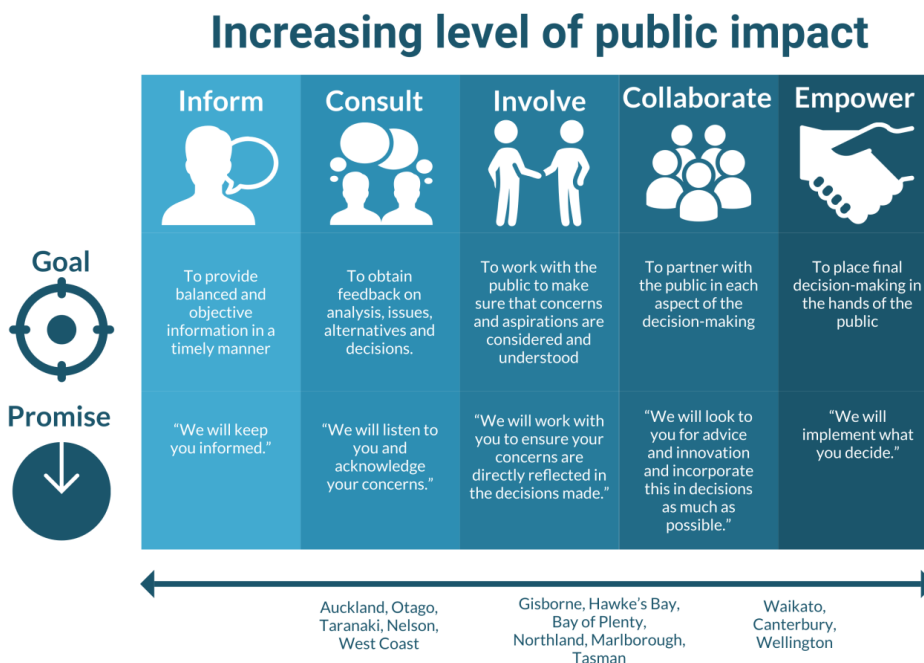
### 3 Community engagement and collaboration

Most councils have undertaken, or are embarking on, some form of collaborative or enhanced consultative process with their communities, as promoted by Ministry guidance on NPS-FM implementation and by the Land and Water Forum, but not explicitly required by the NPS-FM itself.

Collaborative planning is relatively new to most councils and communities, meaning that there is a lot of experimentation and learning going on through processes. The wide spectrum of approaches suggests that there is not a single approach that suits all councils and their stakeholders and communities.

On the spectrum of participation developed by the International Association for Public Participation (figure 5) councils have taken different approaches. Waikato, Canterbury and Wellington are towards the ‘collaborate’ end of the spectrum. This approach is characterised by collaborative groups comprising a range of interested participants providing a package of recommendations to a council, and the council seeking to give effect to these recommendations where consensus is reached. The collaborative group is an active partner in developing planning provisions and decision-making. This approach is most empowering of communities but places the greatest resource burdens on both councils and stakeholder representatives.

Figure 5: Spectrum of public participation



Adapted with permission from: International Association for Public Participation

Other regions, such as Hawke’s Bay, Gisborne, Northland, Tasman, Marlborough and Bay of Plenty, use an approach closer to the ‘involve–collaborate’ category. These councils have typically said that they will have regard to the groups’ recommendations in good faith, but they retain the ultimate decision-making role rather than giving it over to the group.

The rest of the councils are using, or intending to use, a 'consult' process including Auckland, Otago, Nelson, West Coast and Taranaki. They make use of stakeholder advisory groups to solicit community input, but council staff develop plan provisions and make recommendations to councillors. This approach is generally the most cost effective but is the least empowering for communities.

While adapting to local contexts is important, the different approaches from region to region were raised as an issue for stakeholder groups that work nationally, because they are required to adapt to different regimes. However, such groups generally have a number of professional staff who are used to working in such an environment.

Often, uncertainty also exists about the role of collaborative groups after the plan is developed. Many participants around the country believe that collaboration will be valuable in the implementation of plans and this may not need to be driven by councils, but it would require council support.

## Representation is important

Who participates differs by council and may have important implications for how planning processes develop. When setting up consultative or collaborative groups, councils must determine how best to represent the various interests of their communities and what the roles of representatives in consultative or collaborative groups should be.

In some cases, members are nominated to represent their specific sector or interest. This has the advantage of ensuring these perspectives are represented explicitly and with a deep understanding of the community being represented. Often, group members are professionals from national sector bodies with experience in collaborative planning and an understanding of the regulatory system. However, there is an inherent trade off to be made: including more representatives allows for a greater breadth of perspectives and interests, but too many can make collaboration impractical. Hawke's Bay Regional Council has taken this approach with its Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) collaborative group but found the more than 30 representatives unwieldy and difficult to manage logistically. In addition, group participants we spoke to reported a concern that some interests that lack organised bodies, such as youth or forms of recreation, are not well represented. Others felt that the participation of representatives from national sector bodies undermined the intent of community collaboration.

► Determining who participates and how they can represent their communities effectively is a significant challenge for engagement. ◀◀

Other regions have chosen instead to nominate group members who are intended to represent the community at large rather than any one interest or sector. Under this approach, a smaller number of people can represent the full breadth of interests, potentially allowing for a faster process and greater likelihood of reaching consensus. Lay community representatives may also be seen as more 'authentic' voices to speak for their local community. However, it requires that members have a particular skillset and are able to put their own personal interests aside. The use of volunteer community members also raises concerns about their capability and responsibility for making the complex, challenging decisions required. Sector groups expressed frustration at their lack of direct involvement and report that community representatives did not always understand their sector well enough to represent it effectively.

Some councils, such as Waikato, have adopted a mixed model, where several positions on the group are open to sector nominations, while the rest of the positions are open to nominations from the general community.

There are also challenges in how representatives connect to the people they are intended to represent. Councils are encouraging groups to communicate through further local meetings, newsletters and social media. But collaborative group members we spoke to said they had trouble getting people engaged and conveying information back to their communities. Some fear their communities may not support the decisions made without having understood the long process that led to those conclusions.

## Group dynamics in discussions

There can be tension between local representatives and those from national organisations. Local groups and councils sometimes reported feeling that their processes were being used to advance national debates or that local sector representatives were following direction from their national leadership rather than contributing a local perspective.

In some cases, one or two people can dominate the groups at the expense of progress by all. Stakeholder groups are often driven by a small number of significant representatives. To an extent this is inevitable, because someone needs to lead, but it can also result in bias in the outcome. Effort needs to be made to ensure representative attendance and a distribution of roles and responsibilities to encourage representative input. Many councils have provided independent facilitators to ensure that all voices are heard.

Some stakeholders questioned the capability of 'lay participants' to keep up. They said that group discussions only progressed at the speed of those with the least knowledge and expertise. Other groups have an issue where new entrants to groups are not getting up to speed quickly enough. In contrast, industry representatives are often more experienced, and better resourced, allowing them to have stronger voices in the discussion. However, in some cases they may be involved in multiple stakeholder groups at the same time.

## Maintaining momentum and continuity

Maintaining momentum is a significant challenge for collaborative processes. There is a significant commitment over a long period for the planning process. This begins with the collaborative processes and continues until the RMA Schedule 1 notification and consultation process has run its course and a plan is being implemented. It is also sometimes difficult for stakeholders to accept the time period (potentially decades) that is required for tangible improvements to be achieved in water quality. It is essential that councils manage expectations well. There is a risk that participants will otherwise lose faith in the process because they are unaware that change cannot happen immediately.

Maintaining momentum requires good data and information to start off with, otherwise collaborative processes take a long time. Some councils have struggled to maintain momentum due to these information requirements. For example, the TANK collaborative process for the Heretaunga Plains in Hawke's Bay has taken much longer than originally planned in part because of the time needed to research complex surface water and groundwater interactions. The process was delayed as this information was gathered.

On the other hand, there is a general sense that collaborative group participants feel they need more time than is typically given and do not like to feel rushed. Some representatives felt that rushed decisions led their groups to accept options that council staff recommended.

Turnover of participants was identified as a challenge for maintaining momentum and continuity, both within collaborative groups and within councils. Every time a new person joins a collaborative group, they have to get up to speed with the technical information and the progress of the group. Often, new members want to revisit issues that the rest of the group has already covered. Likewise, council staff turnover can pose challenges because new staff need to learn council processes and build relationships from scratch with stakeholders and iwi and hapū.

## Resource demands of collaboration

Collaborative processes can be resource hungry for both the council and participants. Most councils and stakeholders have greatly underestimated the time and resources required. The issues they are dealing with are complex and unable to be solved easily. Significant effort is required to avoid ‘stakeholder burnout’ or ‘consultation fatigue’ – although some changes in personnel may be inevitable.

Resourcing is easier for some stakeholder groups with professional staff who can be involved as part of their function, but the time commitment can be too much for other groups and individuals. This limits the ability of some stakeholders to contribute to the process and can

▶▶ Collaboration places serious time and resource burdens on all involved. ◀◀

reduce the representativeness of the group. Iwi and hapū participants in particular struggle with an already heavy workload of council engagement across a number of issues.

Many collaborative groups are hungry for information, including costly and technical information such as groundwater modelling or economic analysis of different management options. Often they require additional input from outside parties, such as researchers or industry groups. Good communication of economic and scientific information is important, but this puts council staff and resourcing under considerable pressure. Communicating and understanding scientific and economic uncertainty is important.

## The will to collaborate

Some councils are moving away from collaborative processes as implementation continues. This is partially because the councils that have chosen to use collaborative processes have often done so for their most ‘challenging’ catchments and do not necessarily feel that such an involved process is needed in areas with less controversy or complexity. Collaborative processes have been very resource intensive and time consuming, leading some councils to believe that the same environmental outcomes could be achieved with a simpler consultative approach.

For example, Waikato Regional Council said that the subsequent collaborative process for the Waihou–Piako catchment is unlikely to be as comprehensive as the Waikato–Waipā process. Likewise, Northland Regional Council says that catchment groups will likely only be used in

future where there are significant resource management issues, and they will be a lot more focused or targeted in their scope.

Most collaborative or consultative group members have been positive about their involvement in the process. They have built greater levels of understanding through collaboration, both in terms of the science and economics and in appreciating others' views. People we spoke to in Canterbury, for example, say they are having important community conversations that would not have happened five years ago. They have seen a culture change – both in Environment Canterbury and amongst themselves – that has led to much better relationships. In the Wellington region, whaitua members we spoke to were confident that they could deliver the objectives and policies of the NPS-FM.

## Conclusion: findings and where to next

Collaboration is increasingly being used to tackle complex resource management issues. Regional authorities are engaging iwi and hapū, stakeholders and communities earlier in the planning process as a way to resolve tensions over conflicting values, multiple interests and increasing demands for fresh water. An engagement approach that emphasises the sharing of knowledge and working together at the front end of the planning process, through dialogue and discussion, is desired.

Collaboration is new for most councils and requires staff to develop new skills and approaches. Those councils that initiated collaborative groups earlier than others had to innovate and learn through the process. Although these processes may have been imperfect at times, councils should be recognised for making this effort.

The costs involved in resourcing more collaborative processes can be significant and should be a consideration when deciding what engagement process to choose. Collaborative processes are more resource intensive (staff and funding) than traditional planning processes. Furthermore, collaborative processes take time because the group needs to be provided with the space and time to build trust among the group, to consider information and reach a consensus.

Effort must also be made to ensure that all members of the community are represented and able to have their voices heard. The group should make sure that regular progress reports about the group's decisions are made to the wider community.

### Priority areas of focus for the next five years

- At the outset of a collaborative process, it is important that the expectations and demands on all of those participating in the collaborative process are discussed. The mandate and terms of reference need to be clear.
- In particular, councils must ensure that it is clear from the establishment of a group what role the group has and how the council intends to use the advice and decisions of the group in the plan development process.
- Councils should ensure that groups represent, as much as possible, the various interests and groups in the catchment. Processes need to be put in place to ensure everyone gets to contribute and that no individuals or sectors dominate discussions at the expense of others.
- Councils should target under-represented groups as a first step to see how they can be encouraged to engage in the process.

- All members of the collaborative group need to understand that the process is about identifying what is best for the catchment – not what is best for them. Group members who do not commit to a collaborative process and outcome should reconsider taking part in the group.
- All participants, including those representing local and national organisations, need to understand that collaborative groups work best when everyone contributes and participates in good faith. Everyone needs to accept that there is likely to be some give or take on individual viewpoints to reach a consensus. The process will be less effective and achieve less desirable outcomes if participants use litigation at later stages as a threat to get their way during the collaborative group stage.
- The group and council should provide regular updates to the wider community about the group's decisions. These decisions could be included in the council's regular community newsletters and updates. It is not enough to put a news item on a website and consider the community informed.
- Central government should work with local government to develop a system to ensure that collaborative groups are able to keep their communities informed about the group's decisions.
- Central government should provide tailored support for councils undertaking collaborative processes. This may involve training, workshops and facilitating discussions.

#### **Additional areas of work**

- Local and central government need to provide more guidance on the principles and considerations (including costs) when deciding on an engagement approach.

## 4 Engaging with iwi and hapū

In addition to the broader statutory requirements to partner with iwi and hapū, Part D of the NPS-FM directs councils to take reasonable steps to:

- a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region;
- b) work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region; and
- c) reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.

### Rights and interests

Councils have been required to approach the involvement of iwi and hapū in new ways and to address perspectives that they may not previously have considered their responsibility. An overarching theme from councils and iwi was that differing understandings of water ownership have complicated engagement on NPS-FM implementation. Some hui participants contend that the Waitangi Tribunal ruled that Māori have a proprietary right to water and that the Government has a responsibility to address this that cannot be delegated to councils. Unresolved grievances and historic disputes – although not necessarily related to water – nonetheless shape how iwi and councils relate.

Hui participants felt that the wider community does not understand or appreciate iwi rights and interests. They also said that council diversity (elected and staff) is an issue in terms of understanding rights and interests.

### Council approaches to engagement with iwi and hapū

This is challenging for many councils, and there is no single way to involve iwi and hapū constructively. A region-by-region approach is necessary. Some councils operate in complex cultural landscapes, having numerous iwi and hapū and parties that are in different stages in the Treaty of Waitangi claims settlement process. Other councils, particularly those in the lower South Island, have a less complex environment in which to engage. For instance, Southland and Otago engage with one group representing Te Rūnanga Ngāi Tahu, whereas Bay of Plenty engages with 36 iwi entities under 17 different Treaty settlements, with several more in progress. These contexts, and the Treaty settlements, in particular, have profound implications for the governance and management of fresh water, often defining council–iwi relationships in statute.

» There is no single way to involve iwi and hapū constructively. «

The involvement of iwi and hapū in decision-making processes varied from partnership to consultation. Some of the regions where we heard the most positive feedback from hui participants were in Horizons, Wellington, Waikato, Canterbury and the West Coast. Where engagement is working best, it is usually linked to:

- formal relationship agreements between council and iwi and hapū for working together (see Case Study 1)
- strong working relationships, especially where there is leadership at a senior level in council, but relationships need to be driven well throughout council hierarchies
- council staff capability and understanding of te ao Māori, this may be supported by Māori policy specialists or units
- having fewer iwi and hapū to engage with and, therefore, the ability to focus engagement efforts
- iwi and hapū being settled or otherwise well resourced to engage effectively with the council.

Several councils have significant iwi representation on decision-making committees, as a result of Treaty settlement obligations or proactive efforts towards partnership. Some hui participants said that they prefer engaging at this level as a partner rather than as a member of a collaborative or advisory group. In other regions, iwi and hapū were happy to engage at both levels.

In some regions, hui participants said they were unsatisfied with how their local council approached engagement. We heard concerns in Taranaki, Gisborne, Marlborough, Hawke’s Bay and Northland. Most of these concerns related to the lack of formal agreements, good working relationships, or capacity and capability. In addition, historical and current grievances, and ‘token’ engagement or engagement that is ‘seen as an afterthought’, were concerns. Some hui participants felt they were ignored by council.

In other regions, individual hapū representatives said that their iwi does not always represent their interests. Some councils struggle to identify who has the authority to speak for their iwi and/or hapū. Therefore, it can be challenging for councils to strike a balance between involving iwi and hapū and finding the right level for this to occur.

## CASE STUDY 1 – CO-GOVERNANCE ARRANGEMENTS BETWEEN COUNCILS AND IWI

The terms ‘co-governance’ and ‘co-management’ have emerged to describe negotiated arrangements between Māori groups and Crown agencies, regional councils and local councils to share governance and management of natural resources. These arrangements are reached under the RMA or through Treaty of Waitangi settlements. Some involve title to resources such as lakebeds and riverbeds being vested in Māori groups. Most involve formal structures or processes to ensure Māori involvement in decision-making. Examples are included below.

**Waikato River Authority:** This statutory body was created under Treaty settlement legislation in 2010. Five representatives of Waikato River iwi and five Crown appointees sit on the Authority. Crown appointees include the Regional Council’s Chairperson and a person nominated collectively by local Waikato councils. The Authority decides on any changes to Te Ture Whaimana o Te Awa o Waikato – the Vision and Strategy for the Waikato, which must be part of the Regional Council’s planning documents. The Authority appoints a 50 per cent membership of hearing committees considering river-related resource consents. The Authority is also responsible for the Waikato River Clean-Up Trust. Authority decisions are made by consensus.

**Bay of Plenty’s Komiti Māori:** The Bay of Plenty Regional Council (Māori Constituency Empowering) Act 2001 established three Māori constituencies for voters on the Māori electoral roll to elect representatives. The Māori councillors are full members of council. The Komiti Māori (Māori Committee) comprises the three Māori councillors and three councillors from the general roll constituencies and is primarily responsible for setting and monitoring the Council’s work on issues relevant to Māori. Held bimonthly at regional marae, the Committee also serves as a forum for regional iwi and hapū to share their views or raise issues for the Council to address. In addition to this, the Council has two co-governance groups – Te Maru o Kaituna River Authority and the Rangitāiki River Forum – established under Treaty settlement legislation. Formed with iwi and council representatives, each group sets the vision and objectives for management of their river catchment, which the Council will reflect in plans.

**Gisborne District Council’s joint management agreement with Ngāti Porou:** Under the agreement signed in 2015, Ngāti Porou and the Council are jointly responsible for making decisions regarding resource consent applications, plan changes and other resource management issues within the rohe of the iwi. For all such decisions, the iwi and Council each appoint equal numbers of panel members as representatives. These representatives then appoint an additional panel member to serve as chair. The joint management agreement further commits both parties to mutual capability building and acknowledges the aspiration of Ngāti Porou to take even stronger roles in management in the future.

**Te Upoko Taiao – Natural Resources Committee:** This council committee of Greater Wellington Regional Council was established in 2009 to oversee resource management, including the review and development of plans and decisions on consent applications. The Committee consists of seven elected councillors and one representative nominated by each of the region’s seven iwi.

**Canterbury Tuia Partnership:** Te Waihora Management Board (representing Te Rūnanga o Ngāi Tahu) and Environment Canterbury commissioners signed the Tuia co-governance agreement in 2012 that operates at multiple levels. Te Rōpū Tuia is a Tuia governance group made up of the chairs from 10 Papatipu Rūnanga and the Environment Canterbury commissioners, two of whom are nominated by Ngāi Tahu. The technical working group, Te Paiherenga, supports Te Rōpū Tuia and gives advice on policies, projects and engagement. At the sub-regional level, each zone committee has rūnanga members, and Environment Canterbury provides two facilitators to support tāngata whenua involvement.

## Capacity and capability among iwi and hapū

Iwi and hapū capacity and capability for effective participation in freshwater planning was a common theme raised. As iwi involvement in governance and management increases, they often face time and resource demands across multiple issues and have other priorities they need to balance outside resource management. Most hui participants we spoke to said that they were overstretched, especially with their workload engaging on other resource management matters, such as resource consent applications. Water planning is just one part of their workload.

Some iwi are well resourced to manage these burdens and have staff who can provide significant input, especially those iwi that have settled Treaty of Waitangi claims. However, this is not the case for all. As a result, many iwi and hapū are unable to engage in the process as fully as they would like and require additional time and help to enable effective input in

planning processes. Many are working through Treaty settlement processes and consider that they will be better able to engage with councils on water when these are completed.

▶ Limited capacity and capability are major barriers for iwi and hapū participation in many areas. ◀

Some councils have been looking at ways to increase their capability to engage with iwi. For example, Bay of Plenty Regional Council has set up a Māori policy unit within council. This team of eight staff are specifically tasked with: building and maintaining council–Māori relationships, providing advice to council and staff on Treaty settlement implementation, supporting the

development of hapū and iwi management plans, as well as providing support to build capacity and capability of iwi, hapū and council staff.

## Identifying and reflecting cultural values in plans

Other councils said that they struggle to identify and reflect cultural values in regional plans, because many of these values are intangible concepts. This includes incorporating mātauranga Māori. In general, hui participants felt that mātauranga Māori was not well understood or respected as a source of knowledge relevant to regional planning.

There are processes under way in some regions to develop measures of Māori cultural values. However, this approach is not always acceptable, and some iwi and hapū prefer not to have concepts like mauri defined or ‘put into a box’.

## Conclusion: findings and where to next

The preamble of the NPS-FM states that:

The Treaty of Waitangi (Te Tiriti o Waitangi) is the underlying foundation of the Crown–iwi/hapū relationship with regard to freshwater resources. Addressing tāngata whenua values and interests across all of the well-beings, and including the involvement of iwi and hapū in the overall management of fresh water, are key to meeting obligations under the Treaty of Waitangi.

We recognise that the ability of iwi and hapū to partner with councils is affected by resourcing and pending settlements with the Crown. However, it is important that iwi and hapū are able to have their aims and objectives for their local water bodies taken into account. Relationship agreements with councils provide a clear understanding of, and mandate for, the council–iwi relationships.

Getting representative involvement of iwi in resource management decision-making and the implementation of the NPS-FM, particularly at the hapū level, is an important issue.

The NPS-FM recognises the national significance of Te Mana o te Wai; an important part of this recognition is the incorporation of mātauranga Māori in regional plans. Councils and some central government agencies struggle with the concept of mātauranga Māori and how best to incorporate it into their day-to-day work. There is increasing recognition of mātauranga Māori, but how this translates into objectives and attributes in planning language is challenging – not just for councils but also for Māori.

**Priority areas of focus for the next five years**

- Central government and councils need to work with iwi and hapū to identify what support is needed to enable them to participate more effectively.
- Central government and councils need to work with iwi and hapū to develop and make available measures of Māori cultural values and input mātauranga Māori.

**Additional areas of work**

- Councils and the Government need to recognise that cultural values may be difficult to define and may not be transferable from rohe to rohe.
- Councils and iwi and hapū, with central government support, should work to develop formal relationship agreements. These agreements would provide councils with certainty about iwi expectations for collaboration, partnership and what information about cultural values iwi can provide and how this is to be stored and accessed.

## 5 Engaging with territorial authorities

Territorial authorities (district and city councils) are affected by NPS-FM implementation as water users, as providers of drinking water, wastewater and stormwater services and infrastructure (collectively known as the ‘three waters’), and through their responsibility to manage the effects of land use under the RMA.

The NPS-FM does not directly require territorial authorities to include specific provisions in their district plans related to fresh water, but a district plan must give effect to regional policy statements and must not be inconsistent with provisions of a regional plan.

Implementing the NPS-FM and setting freshwater objectives and limits may require changes in how these councils operate their three waters services and infrastructure in the future. For example, if freshwater objectives are set to decrease the *E. coli* levels in a catchment, rules to support that objective will likely require improvements to the quality of any discharges to water associated with stormwater or wastewater services. Similarly, abstractions for drinking water supply could be affected by the setting of environmental flow limits or levels.

►► NPS-FM implementation may require significant infrastructure changes but territorial authorities and urban communities are not always well engaged. ◀◀

Territorial authorities are major water users with a significant role to play in the wider management of fresh water. Some participate in planning processes as both water users and as representatives of their communities. Effective implementation of the NPS-FM requires regional councils and territorial authorities to be working together to achieve freshwater outcomes.

### Territorial authority engagement in NPS-FM implementation

Relationships between regional and territorial authorities vary around the country. Some regions have good working relationships and shared strategies. The Bay of Plenty Region has a territorial authority engagement group to improve engagement. One of the territorial authorities in the region reports that it has every opportunity to engage with the regional council but time and resources to do so pose a challenge. Canterbury also has strong links between territorial and regional planning through Canterbury zone committees, which are joint committees on Environment Canterbury and the relevant territorial authorities.

Unitary authorities<sup>9</sup> constitute five of the 16 councils responsible for implementing the NPS-FM. These councils have an advantage in that they have infrastructure operators as an internal stakeholder and have shared systems and political mandates. However, even these reported poor communication and coordination at times.

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<sup>9</sup> Councils that have the RMA and Local Government Act 2002 functions of both regional and territorial authorities – Auckland Council, Gisborne District Council, Nelson City Council, Tasman District Council and Marlborough District Council.

Regional councils said that often territorial authorities have been slow to understand what is required of them. Territorial authorities we spoke to did not agree, although because we had a poor turnout at regional meetings from this sector, the ones that did attend are probably among the more engaged.

The fact that there is a lack of awareness amongst some territorial authorities is concerning because:

- they may not be adequately involved in regional planning processes to ensure that the provision of three waters services is considered and provided for
- there could be implications for long-term planning if a new limits regime is introduced that requires infrastructure upgrades.

Territorial authority representatives we spoke to said that regional councils often do not understand the context they are working in. The Local Government Act 2002 is a big driver for territorial authorities, where regional councils are driven by the RMA and associated national policy statements and standards.

## Impact of NPS-FM on planning and infrastructure

Territorial authority long-term planning<sup>10</sup> processes do not always align with regional freshwater planning processes. This creates challenges for territorial authorities that need to identify capital investment through a long-term plan for up to 10 years, when the requirements of water policy may not be clear due to the evolving nature of central government requirements and regional planning processes.

Some territorial authorities in the Horizons Region outlined challenges with changing expectations from the regional council and the community; every time water quality objectives change, their treatment processes need to change. This makes it challenging to manage their assets. The impact of one wastewater treatment plant upgrade (shifting from discharge to water to discharge to land) equated to an additional \$100 to \$200 on a property's rates per year. They say that this has a large impact on a low-income area.

Smaller territorial authorities often have limited resources due to a low rating base or large geographical area. They must balance the maintenance of ageing infrastructure with community aspirations to keep rates down. Some towns have declining populations, which amplifies this challenge. These small towns almost all have ageing sewage treatment systems.

Horizons Regional Council identified the Ruapehu District as having particular challenges with a low ratepayer base and high numbers of itinerant visitors. There are already pressures on infrastructure, and tourist numbers are going to increase. Another example is the Far North with 17 sewage treatment plants and only 15,000 ratepayers to fund maintenance and upgrades.

Rural stakeholders spoke of their frustration that towns and cities are not sharing the burden of improving waterways. Territorial authorities disagreed, saying that three waters infrastructure, urban developments and roading projects, unlike many rural activities, are subject to resource consents that have stringent conditions to mitigate environmental effects.

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<sup>10</sup> Councils publish long-term plans to set out proposed priorities, projects and activities that they will focus on over the next 10 years and how these services will be funded.

## Conclusion: findings and where to next

While some territorial authorities are well involved, insufficient engagement and coordination between regional and territorial authorities have been barriers to improving fresh water in some cases.

Regional councils have responsibility under the NPS-FM for setting freshwater objectives (with their communities), but much of the work required to achieve those values and objectives will be carried out by territorial authorities, particularly in urban areas. Territorial authorities do not always appreciate what is required of them and do not always participate actively in regional planning discussions.

Most regional councils have started work to implement the NPS-FM in rural catchments, but few are working through the NOF process with their urban communities (Part CA of the NPS-FM). A major difficulty in urban areas is that the number of stakeholders is dramatically higher.

We recognise that territorial authority resources are limited and understand the effect their spending will have on communities. Growing cities and rural towns alike are facing costly upgrades to ageing infrastructure. However, we feel that these councils and their communities must address urban water issues as soon as possible, if we are to improve waterways.

### Priority areas of focus for the next five years

- Central government needs to raise awareness of territorial authority obligations under the NPS-FM. Territorial authorities need to be aware that regional council limits will impact on, or require upgrades of, three waters infrastructure. The Ministry for the Environment has initiated a programme to engage territorial authorities and develop good management practices for urban water management.
- To do this central government, regional and territorial authorities need to work together to understand the implications of limit setting on territorial authority infrastructure, consent conditions and the likely cost implications for ratepayers.
- More work needs to be done to help urban communities understand the impact they have on water quality and what they should do to improve it.

### Additional areas of work

- Regional authorities, territorial authorities and central government need to develop a better understanding of the interaction between the Local Government Act 2002 and the RMA.
- In recognition of local government's limited ability to fund capital upgrades from a limited funding base, consideration should be given as to how best to support the infrastructure upgrades needed to maintain or improve urban water quality, whether in large or small centres.

## 6 Decision-making

After a community engagement process is complete or a collaborative group provides a set of recommendations to a council, there are still several additional decision-making steps to deliver an operative plan. Unless decision-making and plan writing have been entirely devolved to a collaborative group, councils must translate their communities' wishes into a proposed plan.

Once a proposed plan has been prepared, Schedule 1 of the RMA directs the process for consulting on a proposed plan including: the process for submissions, hearings and appeals to the Environment Court. After that, it can be appealed to higher courts on points of law.

This overall process from engagement to a final operative plan can shape the final outcome and have implications for how well community values are reflected.

### Consensus and council decision-making

Collaborative and consultative groups in some regions are concerned about how their recommendations will be given effect to or not by councils. Most councils give a good faith assurance that they will give effect to a collaborative consensus. However, most retain a degree of decision-making authority. Collaborative group recommendations could be amended, meaning that proposals that were either 'gifted or gained' by various participants in good faith may be lost. Ideally, collaborative groups need a level of certainty to make recommendations and decisions.

Hawke's Bay Regional Council offers its TANK group a good faith assurance that it will 'give effect' to its recommendations (although the co-governance Regional Planning Committee says it will 'have regard' to the group's recommendations). Members of Tasman's fresh water and land advisory groups said that they were confident the Council would take their consensus into account, provided they were able to reach one.

▶▶ Councils are listening to their communities more, but the process of developing community views or collaborative group recommendations into plans must be transparent. ◀◀

Most groups can agree more simple matters, but getting full agreement is really difficult. In some catchments, this includes timeframes for land owners having to make considerable management changes where limits are being exceeded, which can come at a high cost. These matters may be left for council decision-makers.

Councils that have committed to an extensive stakeholder process have had to change the way they work and to 'let go' of some of their policy formation role. To retain the integrity of the collaborative process, councils need to support the outcomes of the stakeholder groups.

Councils have levels of decision-making processes in addition to collaborative ones. These include council committees, regional stakeholder groups and co-governance arrangements with iwi. There is a risk that, if any of these other groups make recommendations that differ from the collaborative group, it will then be a challenge for the council and/or hearings panel to decide which recommendations to accept.

## Schedule 1 hearings and appeals

An important issue that was raised by both councils and stakeholders is the weight given to the outcomes of collaborative processes in subsequent statutory processes. In two zones in Canterbury, members of zone committees felt that the outcomes of the statutory processes did not reflect their consensus. The changes to the groups' recommendations resulted in some members feeling disenfranchised with the outcome. They now recognise that, not only do they have to give significant time to the collaborative process, they also have to provide representation to the subsequent statutory process. This is a different skill set from their usual roles.

▶▶ Good faith participation and support by councils and stakeholders must carry through to the hearings process. ◀◀

Some stakeholder groups did not participate in the consultative or collaborative process – either due to resourcing constraints or because they did not see the value in participating early on, preferring to focus their efforts on the formal Schedule 1 RMA processes. In some cases, local staff attended stakeholder groups and agreed with consensus decisions, but national office staff became involved during formal RMA processes, which sometimes led to a different position being taken. This was raised as an issue in Hawke's Bay, Gisborne, Taranaki and the West Coast. These councils feel that discussions and agreements that might be reached with local representatives are at risk of being overridden by the national head offices of those same organisations.

Collaborative processes are more expensive than traditional consultative processes, but may lead to better and more robust policies and rules, with greater community buy-in and potentially less litigation at hearings and in the Environment Court. For communities to have faith in collaboration to achieve these outcomes, there needs to be:

- council understanding and support for the process, and it is important to keep decision-makers in the loop
- greater recognition of collaborative processes in council decision-making and RMA Schedule 1 processes.

## Conclusion: findings and where to next

The Schedule 1 RMA process can have significant implications for decision-making. Some collaborative groups have been disappointed when council decision-making groups or hearings panels have reinterpreted the group's decisions. The decision-makers in councils or at hearings may lack detailed knowledge of the trade offs made by group members to reach the collective decision and may make a decision that effectively undoes the group's work.

When forming a collaborative group, councils must provide the group with a clear understanding of its role, how the council will handle the group's recommendations and how these will be translated into a planning document. This information should be included in the group's terms of reference so that any new members to the group know explicitly what will happen to their recommendations.

Some respondents argued that the RMA Schedule 1 process hinders full engagement by some group members, because they prefer to use the later hearings or court processes to achieve their aspirations. The tendency for some national groups to take part in the collaborative process in a limited manner and then resort to litigation clearly undermines the collaborative process. The new process established in the Resource Legislation Amendment Act 2017 should help to resolve this, but all involved in collaborative processes must engage in good faith.

Councils that have committed to an extensive stakeholder process have reported that their staff needed to change the way they work and to 'let go' some of their policy-making role. However, to retain the integrity of the collaborative process, councils need to support the group's final decision for its catchment.

If the council decision-making process opens the group's decision to reinterpretation, the group should be given the mandate to support its decisions through the planning or hearing process.

Several groups we spoke to noted that it is difficult under the RMA to draft agile plans that can incorporate new versions of scientific models without rewriting the plan.

#### **Priority areas of focus for the next five years**

Collaborative groups must have terms of reference that at the least clearly define:

- the role of the group
- its decision-making functions
- whether the group's decisions are advisory or binding on the council
- whether the group, or group members, can appear at hearings in support of the group's recommendations.

Councils must provide advice to groups about how the groups' decision(s) will be converted into plans.

#### **Additional areas of work**

- Council plans need to be 'agile' – there needs to be a procedure in place to deal with unintended consequences or things that are likely to change, such as new versions or updates to models used to allocate resources.

## 7 Capacity and capability for freshwater planning

Inevitably, the more intensively freshwater resources are managed the more resources that are required to be invested in that management, whether it be information gathering, modelling, plan development or plan implementation. The requirements in the NPS-FM to establish freshwater objectives and set freshwater quality limits for all freshwater management units in a region is a major task.

The degree of management is dictated by the state of allocation. Robust information is essential where there are significant resource pressures and where management options will have significant effects on individuals or communities. Fully and over-allocated resources necessarily require more intensive management than resources that are not approaching limits.

### Council capacity and capability

Most councils significantly underestimated the amount of time, effort and investment required to implement the NPS-FM. Councils often have only enough resources to run one or two processes at a time, which inevitably leads to a staged approach to implementing the NPS-FM. For example, Tasman District Council said that it will be working hard at plan making for the next 10 years, and it has had to reorganise and defer other work. It has a small planning team that needs to manage its workload carefully. Moreover, councils are concerned about the effects that their expenditures have on their rates bases. Hawke's Bay Regional Council reports that the equipment and installation costs for a new monitoring site for an FMU would cost around \$100,000, and every \$100,000 of council spending translates to a 1 per cent increase in rates.

» Implementing the NPS-FM has taken more time and resources than councils, iwi and stakeholders expected. «

Some councils, particularly those that are using collaborative processes to set objectives and limits, indicated that it was not so much staff numbers that was the issue but the new skill sets required of staff. Moving to a more collaborative approach required a different way of thinking and doing business that few councils had used before. Collaboration has forced major skill and culture changes, including increased need for skills such as facilitation, mediation and communication as well as technical skills to support collaborative group discussions with economic and social science expertise. Many councils do not have dedicated economics or facilitation staff, so existing staff have had to develop these skills.

One challenge noted by some councils further along the process is that the demands on their staff skill set change throughout the process. The front end is dominated by obtaining information, this then transfers to facilitating and negotiating in the collaborative process, which in turn leads to plan writing and support through the statutory process and then into implementation and enforcement.

There are not enough specialists in the market, and councils are competing for the same small pool of scientists, modellers and economists working for private companies or Crown research

institutes. Councils with fewer resources, or that are more isolated geographically, have difficulty attracting people with the right skills and experience. Regions without nearby universities or Crown research institutes have less opportunity to draw on academic work, particularly that done in their regions. Gisborne, Otago and Southland have had issues with staff turnover and said they have a limited local pool of experienced and qualified staff to call on. Turnover can be an issue where councils lose staff who have institutional knowledge and have built good working relationships in the region.

Some stakeholders we talked to, especially those from the agricultural sector, said that council staff lack knowledge of farm systems needed to set sensible rules regarding their businesses. They felt it was important to have robust processes to understand the economic benefits and effects of decisions.

Many review hui participants we spoke to said that councils lack a Māori voice or advisors and do not understand te ao Māori well enough to convey tāngata whenua values accurately in plans. Some councils have Māori liaison officers, but these staff are usually spread quite thin across the region. In addition, there is a perception that Māori are under-represented among council planning and technical staff.

Councils with the most capacity and capability include Waikato, Canterbury, Wellington, Bay of Plenty, Otago, Southland and Auckland. Nelson, Marlborough and Taranaki are smaller councils that are well resourced for their size. Gisborne, Northland, Tasman and West Coast are large regions with lower capability and capacity, which is a barrier to effective NPS-FM implementation.

## Stakeholder and community capacity and capability

There is a high demand on members of collaborative groups in terms of workload; many councils do not pay participants any compensation for time and travel, and they rely on participants giving up their time and energy. Taking part in a collaborative group has been compared to a second, unpaid full-time job with lots of travel and reading. As well as the time required to attend meetings, collaborative group members need to understand complex reports and communicate these reports back to the groups they speak for. As noted previously, the group can only move as fast as its least experienced member.

▶▶ The burden placed on the volunteer community and sector representatives is high. ◀◀

Some participants are paid and supported by an organisation and others are not. Even well-resourced stakeholders who are paid by an organisation report that involvement is demanding and they are often stretched across multiple planning processes in different regions.

Some councils and stakeholders raised the issue of industry capacity to support the establishment of objectives and, ultimately, the implementation of the rules. Good examples exist of support and resources to land owners that are covered in the plan implementation section of this report.

## Conclusion: findings and where to next

Implementation of the NPS-FM is a big task for regional authorities and their communities. Most councils have been responding by staging their implementation programmes accordingly, but capacity and capability remain a challenge that needs to be addressed.

Councils with the most capacity and capability include Waikato, Canterbury, Wellington, Bay of Plenty, Otago, Southland and Auckland. Nelson, Marlborough and Taranaki are smaller councils that are well resourced for their size. Gisborne, Northland, Tasman and West Coast are large regions with lower capability and capacity, which could be a barrier to effective NPS-FM implementation.

The national trend towards greater engagement with communities on freshwater management has meant changes in the skill set required of council staff. These skills include facilitation, mediation and communication as well as technical skills to support collaborative group discussions, such as economic and social science expertise. Building knowledge and understanding of te ao Māori will be essential.

The burdens placed on collaborative group members are severe. It is therefore vital that support and information for group members and staff supporting them is provided or, if already available, is easy to access.

### Priority areas of focus for the next five years

- Council staff should be trained and supported in developing the skills required for the approaches to freshwater management, particularly with regard to collaboration and the communication of complex issues to non-specialist audiences. The Ministry for the Environment has existing programmes to develop skills among council staff and should work with councils to share lessons from different councils' experiences.
- Consideration should be given to appropriate support for, or reimbursement of, unpaid members of the group – this would need to be done in a manner that does not create 'professional group members'.

### Additional areas of work

- Ways must be found to reduce the resource burdens of planning, particularly when using collaborative processes. The alternative planning pathways under the Resource Management Amendments Act 2017 are intended to address this by reducing the time and costs of litigation, but further support will be required to aid collaborative processes.
- Support should be provided to help collaborative group members understand complex issues and to collaborate effectively.

## 8 Information

As resources are managed more intensively, significantly more information is required to better understand current and future states under various development and mitigation scenarios.

NPS-FM implementation requires more monitoring of water quality and flows, both to inform the development of objectives and to assess long-term trends. This is particularly challenging for those councils that have a large geographical area and small resource base, both in terms

▶▶ Implementing the NPS-FM and meeting community expectations require ever-increasing investment in monitoring, research and data management. ◀◀

of establishing monitoring and handling the large volumes of data that result. Lack of resourcing for monitoring programmes is a factor in the speed at which the NPS-FM can be implemented.

Investment in science to support options assessment and decision-making can be significant, particularly where there are complex issues. Examples include: nitrogen loss modelling, flow and contaminant load

modelling and economic modelling. The extent to which these are required is dependent on the complexity of the issues and the level of conflicts between resource users. Robust science is critical where there is significant over allocation of resources, particularly in Schedule 1 RMA processes.

It is important to note that media reports about negative water quality or quantity data should not necessarily be interpreted to mean that councils are not taking action. The fact that this data is now available is evidence of the increasing levels of research and monitoring that councils are now conducting.

### Scientific and technical knowledge

Information requirements are daunting for less well resourced councils, many of which already have significant monitoring regimes set up for major resources. Government reporting information requirements are increasing, as are community expectations of the amount of information and evidence required to support decision-making.

The NPS-FM requires significant and exponential investment in monitoring and data management. Councils are required to establish freshwater objectives for specified attributes in each FMU and to monitor progress towards those objectives.<sup>11</sup> These attributes are not necessarily the same ones that councils monitored previously. Therefore, councils must install and operate costly new monitoring equipment at enough sites to represent each FMU adequately and then develop sufficient record length to make decisions. For example, periphyton needs to be monitored for a minimum of three years to establish the attribute state.

<sup>11</sup> Appendix 2 of the NPS-FM lists six required attributes for lakes: phytoplankton, total nitrogen, total phosphorous, ammonia, *E. coli* and cyanobacteria. Six attributes are listed for rivers: periphyton, nitrate, ammonia, dissolved oxygen, *E. coli* and, for lake-fed rivers, cyanobacteria.

Moreover, there are practical concerns in determining where to place monitoring stations. For example, it would be prohibitively expensive for councils to monitor each lake individually. Canterbury has more than 4700 lakes yet regularly monitors 29. However, unlike rivers, where water quality issues are closely interconnected across a catchment and relatively few monitoring stations can serve as indicators for the entire system, lakes are often discrete units. This makes it difficult to determine which lakes, if any, could be considered representative. Councils also must decide whether to strive for representativeness, which gives a more accurate overall picture but omits the most degraded or pristine sites, or to prioritise the most vulnerable or degraded water bodies for monitoring, which provides better quality information on those priority areas but may create a public perception that overall water quality is worse in the region than it is.

The increased volume of data is becoming costly and hard to manage and report. For example, in 2015/16, Hawke's Bay Regional Council collected 9.2 million data points related to groundwater, water quality and hydrology science alone – all of which had to be stored, coded and kept secure. This represented an increase of around 50 per cent over the previous year. For this amount of information, using common office tools like Microsoft Excel is no longer adequate, and improving data management systems can be expensive. The amount of data the Council has to manage is only going to increase and the costs will affect rates.

Generally, council datasets are better for quantity than they are for quality. However, even councils that have good datasets on consented water volumes have a lack of water use information. This is improving following the introduction of national water measuring regulations.<sup>12</sup>

Councils that are best resourced in terms of monitoring and information management include Horizons, Waikato, Canterbury and Wellington. Councils with the least resourcing include the West Coast, Northland (with more than 1000 mostly small catchments) and Gisborne (which cannot afford the required monitoring equipment).

## Supporting community engagement and collaboration

Councils report that communities are information hungry. They often want to understand the current state first (and sometimes the natural state) before testing options or scenarios and predicted impacts of these scenarios. Some councils say that there seems to never be enough information to satisfy these groups, and, at some point, they need to make decisions, monitor what the outcomes are, then readjust and perfect in subsequent plan changes.

There was debate among both council staff and stakeholders as to the timing of research in relation to community engagement. Because several collaborative or consultative groups have been slowed while waiting for research to be completed, some have argued that the council should wait longer before initiating its community engagement processes. On the other hand, several stakeholders felt it was important that communities are able to direct research priorities so should be involved earlier in the process.

Good communication of scientific and technical information and transparency of process are becoming increasingly important. Many stakeholders we spoke to were distrustful of council

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<sup>12</sup> The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 came into effect in 2010. They require all consented water takes over 5 litres per second to have verified water meters installed, record daily use data and report this information annually to regional authorities.

datasets and modelling. Much of this distrust was about not understanding how the council reached its findings, with stakeholders reporting that models were a ‘black box’ where data went in and somehow an answer popped out. Because all models have uncertainty and are only as good as the information that is fed into them, communicating that uncertainty is really important. Environment Canterbury has recognised the pressure that technical staff are now under to communicate information to communities, and it now trains its staff in science communication. The Ministry for the Environment recently ran a series of courses around the country to build capability in this area.

In some cases, members of the community undertake their own monitoring to either inform decision-making or to challenge council datasets. For example, in Tākaka (Tasman), some Fresh Water and Land Advisory Group members, with funding from community group Friends of Golden Bay, have established their own monitoring programme for the Te Waikoropupū Springs. They felt the Council’s monitoring was not frequent enough and now collect their own samples and send them to a GNS Science laboratory for analysis. Another example is the Ruataniwha Water Users Group, in Hawke’s Bay, which developed a separate groundwater model to that used by the Hawke’s Bay Regional Council. Waikato Regional Council addressed distrust by supporting the Healthy Rivers – Wai Ora collaborative group with a technical advisory group of independent subject experts. This was successful in building stakeholder trust; however, it initially meant that the Council’s own experts were underused.

## Mātauranga Māori

Councils generally expressed a willingness to incorporate mātauranga Māori knowledge into their planning and monitoring but were uncertain about how to do so effectively. Some councils are attempting to address this. For example, Bay of Plenty Regional Council is looking at developing a mātauranga Māori framework, and Gisborne District Council has worked with iwi to develop a ‘Mauri Compass’ to help quantify and visualise indicators of mauri.

As mentioned above, hui participants generally felt that mātauranga Māori is not well understood or respected as a source of knowledge relevant to regional planning. At numerous hui (including in Northland, Marlborough, Hawke’s Bay and Gisborne), participants expressed frustration that Māori knowledge that had previously been provided was not being used or referenced. This forced them to have to repeat the same messages at many meetings.

## Socio-economic analysis

Industry representatives from multiple organisations reported concerns that socio-economic factors are not being adequately considered in decision-making in many regions. Limits were seen to reflect environmental outcomes that councils wanted to achieve without first considering community values or socio-economic impacts of those limits. This was mentioned both in terms of the economic analysis to support collaborative processes, as well as for the RMA Section 32 report that accompanies the plan.

Stakeholders spoken to in Canterbury said that the Waimate Zone process was lacking economic analysis. They said that general work from other areas was used as an evidence base but there was little related to the local context. The Council is not doing sufficient work to account for socio-economic impacts. We heard similar concerns in Southland in terms of the Section 32 report to support the recent draft Water and Land Plan.

Taranaki Regional Council says that undertaking Section 32 analysis is a challenge because it does not have economics experts in house. It intends to contract out some of the work to understand the socio-economic effects of nutrient management, but resources to do this are limited.

Some councils have invested heavily in economic modelling. Greater Wellington Regional Council has spent nearly a million dollars already to support whaitua limit-setting processes. Waikato Regional Council, likewise, has spent a large amount and says that extensive economic analysis has been critical to the success of the process to date. However, some stakeholders in the Waikato region said that they have an 'over emphasis' on economic modelling and were spending too many resources on it. They said that, despite the complexity of the biophysical resources, four times as much money was being spent on economic modelling than biophysical modelling.

Representatives from the tourism sector said that it was difficult to articulate the value of their non-consumptive industry for communities. An important value of water for the tourism sector is the aesthetics of waterways and landscapes that draw tourists. The industry struggles to express these qualitative values in a discussion that is often quantitative. The industry does not have the capacity to tell its story at a local level.

## Conclusion: findings and where to next

As resources are managed more intensively, significantly more information is required to better understand the current and future state under various development and mitigation scenarios. There is clearly a role for data providers, be they central or local government or Crown Research Institutes, to work together to ensure that the debate about water quality is based on agreed, accurate and trusted data.

An important issue here is the sometimes lengthy time lag between an action being taken to improve water quality and the improvement being seen. Complicating this is an apparent mistrust of central and local government water quality and quantity data.

Giving effect to the NPS-FM requires exponential investment in monitoring and data management.

Councils that are best resourced in terms of monitoring and information management include Horizons, Waikato, Canterbury and Wellington. Councils with the least resourcing include the West Coast, Northland and Gisborne.

Investment in science to support options assessment and decision-making can be significant, particularly where the issues are complex. Robust science is critical where there is significant over allocation of resource, particularly in Schedule 1 RMA processes.

However, councils need to ensure they have clear criteria for assessing when they have sufficient evidence to start setting limits and mitigating the effects of land use. They also need to have appropriate mitigation strategies in place to allow the limit-setting process to continue in an efficient manner if collection and analysis of science and economic information takes longer than expected (eg, base conclusions on information already collected and expert opinion).

Councils generally expressed a willingness to incorporate mātauranga Māori knowledge into their planning and monitoring but were uncertain about how to do so effectively. It is important that, with assistance from central government, councils share information on the approaches they are taking so as to learn from successes and challenges.

The feedback was mixed from councils and stakeholders we spoke to about the quality of economic analysis being used to set freshwater objectives and limits. It is our opinion that this is an area where there has generally been an improvement in the past few years and warrants continued investment from central government in training, funding and sharing lessons learnt.

**Priority areas of focus for the next five years**

- Where councils are waiting on research to progress objective and limit-setting processes in catchments, they need to make it clear to their communities what their criteria are for deciding when they have a sufficient amount of evidence to proceed.
- Central and local government need to continue to invest in developing frameworks for incorporating mātauranga Māori into freshwater planning, including sharing lessons learnt.
- Central and local government need to continue to invest in improving the quality of economic analysis to support decision-making, including sharing lessons learnt.

## 9 Plan implementation

Developing objectives, limits and plans that contain appropriate provisions is only part of the process. Successful implementation of the plan provisions is then required to bring about changes that will, over time, lead to improvement in environmental and community outcomes. Under the NPS-FM, freshwater management will generally increase in scope and scale. Implementation of post-NPS-FM plans has yet to be extensively addressed by most councils because most processes and plan changes are still being developed.

Often, plans provide for delayed and staged implementation of the rules to enable changes to be planned and budgeted for. The implementation of rules to reduce contaminant inputs (ie, nitrogen load rules) and other measures (eg, farm management plans) can have significant operational and financial implications for land owners.

Once changes are made, improvements in the environment will often take years or decades to materialise, particularly for water quality. This is due in part to the time taken for contaminants to pass through a catchment (particularly when transported within groundwater) and the need to obtain improvement at a sufficient scale that benefits become tangible. Many councils refer to the 'load to come', which is the contaminant load that has already been discharged but has yet to pass through the hydrological system and appear in monitoring data. This must work through the system before improving trends in receiving environment quality will be seen. In some cases, this has been estimated to take over 80 years.

It is important to acknowledge that initial approaches are unlikely to be 'perfect', particularly in this early phase of NPS-FM implementation, and that unexpected consequences may arise. In some instances, that can be due to a different interpretation of the rules than was intended or plan language that did not accurately reflect the outcome sought. It can also occur as contaminant models are updated and refined, as occurred with the OVERSEER® model in Canterbury and Horizons councils, which can have significant implications on consent requirements.

### Achieving outcomes

It can be challenging to translate the agreed desired outcomes into tangible and enforceable rules. Often, the primary outcome is a change in behaviour leading to improved environmental performance. Subjective measures are more difficult to enforce, so in most regions these are translated into measurable performance standards. However, translating outcomes into measurable and enforceable rules can change the focus to a 'numbers game' with the aim of

» The challenge to come is in the implementation. «

demonstrating compliance rather than achieving better outcomes. Some stakeholders were concerned that councils were busy trying to meet the requirements of the NOF rather than actually achieving better water quality.

Many councils said that the solutions to water management issues were a mix of regulatory and non-regulatory methods. In Canterbury, for example, zone committees make recommendations on a package of regulations and non-regulatory means of achieving plan outcomes. Some of the recommendations are for councils to enact, others are accomplished by communities or other organisations.

## Non-regulatory initiatives

One council said that rules are useful to stop further degradation of waterways, but, to get improvements, there needs to be greater uptake of available good land management practices, more investment in built and natural capital, and development of new technologies and management techniques.

Taranaki Regional Council has a particular focus on using non-regulatory approaches, including an extensive riparian planting programme. It says that this is a more effective use of council resources than plan changes, in terms of environmental outcomes. Both Gisborne and Northland focus on non-regulatory approaches to managing sediment, because they consider these are the most effective at reducing losses to water. They promote voluntary action, by providing advice about planting and soil conservation, and funding or subsidies for activities, such as riparian retirement and fencing.

Many stakeholders believe central government is not aware of the positive work being carried out locally, separate to the policy the Government is trying to implement: “people are just quietly doing it anyway”.

Some non-regulatory approaches have proved to be successful and these are detailed in Case Study 2.

### CASE STUDY 2 – SUCCESSFUL NON-REGULATORY FRESHWATER IMPROVEMENT INITIATIVES

**Manawatū river accord:** signed in 2010 by the Manawatū River Leaders’ Forum, which represents iwi, stakeholders and local government agencies to improve the state of the river. In 2012, the Government contributed \$5.2 million to a \$30 million work programme to clean up the river. The purpose of the project is to improve the mauri of the river catchment so it can sustain fish species, be suitable for contact recreation and in balance with community needs.

**Sustainable Land Use Initiative:** was established in the Horizons region following severe flooding in 2004 and is supported by the Government. Uses non-regulatory methods, including land retirement and planting, to provide incentives for land use changes to minimise hill country erosion.

**Lake Brunner:** a programme of action was put in place to address declining water quality in the lake. Council, land owners and other organisations worked together to address these issues through fencing, riparian planting and farm plans to reduce nutrients. Several community freshwater enhancement projects have also been undertaken. Recent monitoring shows an improvement in lake water quality.

**Aorere Catchment Project:** was established in the Golden Bay area in 2006 and focuses on understanding water quality issues and their effect for the wider catchment. The work was originally sparked by aquaculture industry concerns following reduced harvest opportunities, linked to declining water quality. Considerable progress has been made in reducing ‘run-off’ from dairy farming activity; this has resulted in improved water quality, which in turn has improved harvesting opportunities for the aquaculture industry.

**Taranaki Riparian Management Programme:** a voluntary project to improve riparian areas on private land. Council reports that around 80 per cent of waterways have been fenced and 65 per cent have been planted. Council is aiming for 100 per cent of dairy farms to have their streams fenced and planted. Council officers work one-on-one with farmers to identify fencing and planting requirements and costs. The Council tenders annually for the bulk supply of suitable native riparian plants and provides these to farmers at cost.

**Project Maitai/Mahitahi:** a collaborative project with the community and key agencies in the catchment. It involves initiatives including riparian planting, removing fish barriers, reducing pollutants and educating the community. The Nelson City Council reports that this project is showing improvements.

## Compliance, monitoring and enforcement

As land and water are more intensively managed, the resourcing required increases exponentially to ensure compliance.

There was a widespread expression from stakeholders and iwi that greater enforcement is needed for limits to be effective. However, enforcement actions (eg, abatement notices, infringement notices and prosecutions) are not the only way to ensure compliance – working with land owners to achieve outcomes can be more effective than taking an enforcement action. Moreover, where rules are not clearly set with implementation and monitoring in mind, they may be difficult to measure and enforce, because it is difficult to determine when a breach has occurred.

In Otago, Plan Change 6A sets water quality limits, but Otago stakeholders believe it is not being implemented properly. There is uncertainty about what the rules mean and little communication with the Regional Council. Stakeholders were not convinced that limits were being enforced.

Horizons Regional Council said that the One Plan was an improvement in terms of freshwater management, and it is trying to be practical in its implementation. However, Fish and Game Wellington and the Environmental Defence Society recently sought a declaratory judgment from the Environment Court about Horizons Regional Council's implementation of the One Plan through its approach to resource consenting under a limits regime.<sup>13</sup>

Some councils and stakeholders are struggling to understand how to monitor and enforce catchment load limits on diffuse discharges at the property level. For example, if a nutrient load limit is set for a whole catchment and subsequently exceeded, it can be difficult to determine who is to blame. One way councils are working around this issue is to link a land owner's individual nutrient discharge allowance to a set of actions agreed under resource consent conditions or a farm environment plan. Therefore, compliance and enforcement is linked to the land owner completing several nutrient input controls and mitigation strategies that can be measured by compliance staff or an audited third party or industry scheme. The input and output controls collectively allow a land owner to meet the nutrient discharge allowance for their property. If every land owner meets these requirements, the catchment load should be maintained at a level that provides for the community's water quality objectives.

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<sup>13</sup> Although the findings have recently been released, we are not conducting an analysis as part of this report, because this review is based on discussions with council staff, stakeholders, iwi and hapū in 2016.

## Impact of implementation

The impact of implementation is not fully appreciated yet by the general public. In many regions, we heard concerns about the effects implementation would have on land owners.

Some limits set through plan changes, especially those in catchments over allocated or not meeting community objectives, may have significant effects. Stakeholders in Rotorua were concerned about the impact of nitrogen limits set through the notified Plan Change 10 for Lake

▶▶ The impact of implementation is not fully appreciated yet by the general public. ◀◀

Rotorua. This plan change aims for a reduction in nitrogen leaching of more than 30 per cent of the current rate, which will likely require costly management changes to meet the targets, as well as potential land use changes. The Council says that, even with every property operating at best practice, reaching this target will prove challenging.

In Gisborne, stakeholders consider the capacity to carry out requirements of the planning regime was a serious limiting factor, in particular, the high costs associated with fencing, bridging and pumping water. They would like to see more focus on education and developing new methods to achieve better water quality outcomes.

In Wellington, it was reported that wastewater upgrades to meet objectives would require significant investment. This was particularly in places like Porirua with ageing infrastructure and constrained budgets.

Most regional plans that set objectives and limits as required by the NPS-FM have rules that do not practically apply immediately or can be achieved over long timeframes. These long timeframes are for various reasons, including giving land users reasonable time to make the necessary changes on the ground (especially where a large cost is involved), and recognising the long lag times in which changes on the ground will result in improved water quality indicators. Table 1 gives examples of long timeframes in regional plans.

**Table 1: Examples of long timeframes in regional plans**

Regional plan title	Regional plan rule	Timeframe
Northland Draft Regional Plan	Exclude pigs and dairy cows from all permanently flowing streams and rivers.	From 1 Jan 2025
Proposed Waikato Regional Plan Change	Discharges of nitrogen, phosphorus, sediment and microbial pathogens to land and water result in achievement of the restoration and protection of the 80-year water quality attribute targets in table 11-1.	By 2096
Plan Change 10: Lake Rotorua	No authorisation of discharges that would exceed the nitrogen limit (435 tonnes per year) in Lake Rotorua.	Beyond 2032
Proposed Gisborne Regional Freshwater Plan	No cultivation is undertaken within 1 metre of the edge of any modified watercourse, permanent or intermittent stream.	From July 2021
Plan Change 6 to Hawke's Bay Regional Resource Management Plan	Where the quality of fresh water has been degraded to such an extent that Objective TT1 is not being achieved, water quality shall not be allowed to degrade further and it shall be improved progressively over time so that Objective TT1 is achieved.	By 2030

Regional plan title	Regional plan rule	Timeframe
Proposed Canterbury Land and Water Regional Plan	Improve water quality in the Northern Streams Area and Waihao–Wainono Area by requiring all existing farming activities, except those on extremely light soils, to comply with the maximum cap.	By 1 January 2030
Proposed Southland Water and Land Plan	Requiring progressive exclusion of all stock, except sheep, from all water bodies, including artificial watercourses, on land with a slope of less than 16 degrees and the management of sheep in critical source areas.	By 2025

## Conclusion: findings and where to next

Implementation of plans set under the NPS-FM has yet to be extensively addressed by most councils, because most processes and plan changes are still under way or even still on the drawing board. In many regions, we heard concerns about the effects that implementation would have on land owners.

Community expectations of freshwater management are rapidly increasing. Community members understanding of water management processes continue to pose a challenge for regional and national discussion about what is achievable and the time it takes to improve water quality.

Having an agreed regional implementation strategy could be important to ensure that the collective regulatory and non-regulatory initiatives lead to desired freshwater outcomes. A plan is only as good as a council's ability to implement it fairly and equitably across the plan area and region and to monitor and enforce compliance with the plan. There was a widespread expression from stakeholders and iwi that better enforcement is needed for limits to be effective.

### Priority areas of focus for the next five years

- Local and central government need to make sure that successful regulatory and non-regulatory initiatives are publicised so the general public can have confidence that progress is being made to maintain and improve freshwater resources.
- Local and central government should invest in gaining insights into land-owner behaviour both centrally and regionally, to better focus regulatory and non-regulatory initiatives.

### Additional areas of work

- Councils need to ensure that plans are implemented on the ground through greater compliance, monitoring and enforcement – whether formal enforcement action or alternative means – to ensure that outcomes are being achieved.
- Councils should consider developing an implementation strategy to ensure that collective regulatory and non-regulatory initiatives will lead to desired freshwater outcomes.

## 10 Government direction

In the six years since the introduction of the 2011 NPS-FM, there has been more focus on freshwater management than ever before in New Zealand's resource management history.

New Zealand has a highly devolved resource management system; the NPS-FM and RMA place the responsibility for management of waterways on regional authorities. The objectives and policies of the NPS-FM balance providing for national values in a consistent manner while allowing flexibility for councils to set specific management objectives for freshwater bodies in their regions.

The Government is developing an extensive programme of national direction to respond to a range of issues, both resource management and otherwise. This is the context that regional councils are working in and need to navigate. Initiatives recently completed or currently under way will affect freshwater management, including but not limited to:

- a second round of amendments to the NPS-FM
- the Resource Legislation Amendment Act 2017
- the National Policy Statement for Urban Development Capacity
- the National Environmental Standard for Plantation Forestry
- stock exclusion regulations
- ongoing policy work to address Māori rights and interests.

### Ongoing amendments to the NPS-FM

The NPS-FM was amended in 2014 and is now being amended again in 2017. This presents challenges for councils and communities in terms of uncertainties over changing requirements. Concern was raised at future changes to the NOF and, in particular, the adoption of additional values and attributes, which would require processes that have previously been completed (or are currently under way) to be revisited with potentially high associated costs. There is a fear that collaborative group decisions or local plans will be undermined by subsequent national directives.

Councils say that they need some respite from regulatory changes to enable them to get on with implementation. Some councils are waiting to start implementing aspects of the NPS-FM until the amendments 'settle down', because they do not want to have to repeat work. For example, Northland Regional Council said that the current NPS-FM lacks attributes relating to sediment, such as total suspended sediment, visual clarity and sedimentation rates.

A significant degree of uncertainty still exists about terms and concepts in the NPS-FM, in particular, the meaning of Te Mana o Te Wai and its linkage to the implementation of freshwater policy, water quality limits, what constitutes an accounting system, and how to measure if water quality is being 'maintained or improved' across a region. These interpretation challenges can slow progress and lead to inconsistent approaches as their meaning is debated in collaborative groups and at hearings around the country. Councils acknowledge that the Government is attempting to clarify some of these concepts through the 2017 amendments to the NPS-FM.

The national value of human health for recreation was raised as an issue, and whether the value of swimming, in particular, should apply to all water bodies or only to those that are used (or identified as suitable) for swimming and how best to measure it.

Some councils, including Marlborough, Taranaki and Hawke's Bay, mentioned that the focus of much public debate regarding NPS-FM implementation is on achieving numbers and not on achieving outcomes. They say that the NPS-FM drives a 'reductionist approach', and that they want to achieve water quality outcomes that align with community needs, including environmental and use outcomes.

## RMA planning

Many of the concerns we heard from stakeholders were more general with the RMA than the NPS-FM. These included that the RMA planning process takes too long and was a 'battle of attrition', with the last party standing through hearings and appeals getting the most beneficial outcome.

Some considered that a short-cut process is needed to fix plans where there are poor rules, unintended consequences, new technical and scientific information, and technology changes. One common example of this was to accommodate new versions of fundamental limit-setting models like OVERSEER®.

## Other central government direction

Councils and some stakeholders were not clear how various government initiatives and direction fitted together, particularly those promoting increased economic development in areas such as renewable energy production, agriculture and housing. Examples include the following.

- There is a perception among some stakeholders that the Government's goals of doubling the value of exports, increasing land development for housing and maintaining and improving water quality are mutually exclusive.
- Electricity generators we spoke to said that they felt like councils were not considering the NPS for Renewable Energy Generation when allocating water.
- Some councils said that the National Environmental Standard for Plantation Forestry was setting rules for one industry, which had undermined collaborative processes, and there was no point in developing new policies and rules if they will just be replaced by the National Environmental Standard.<sup>14</sup>

One council said that the current operating environment for local government is more volatile than ever before, and there is much uncertainty.

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<sup>14</sup> At the time of the review in 2016, the National Environmental Standard for Plantation Forestry had not yet been gazetted.

# 11 Government support

The Government has given regional authorities a large and challenging task to improve the management of fresh water resources around New Zealand. The Government has put significant resources into implementing the NPS-FM. In recognition of the complexity involved in effectively implementing the NPS-FM, the Water Directorate (a joint directorate of the Ministry for the Environment and Ministry for Primary Industries) has an extensive programme of implementation support and guidance under way to help build the capacity and capability of those involved in the management of fresh water.

The Water Directorate's Implementation and Guidance Teams have acted as the freshwater programme's outreach arm. The teams work with councils to understand the issues they are facing in implementing the NPS-FM and provide support to help councils understand the requirements of the NPS-FM and build their capability. These teams work with councils through a range of media including: exchanges, workshops, developing guidance material, and training courses for council staff. These media have covered topics including: working collaboratively with communities, communicating complex technical information, involving iwi and hapū in freshwater planning and management, and economic analysis. The team links councils together to ensure that benefits and lessons learnt are shared across New Zealand.

## Strengths of government support programme

The programme has focused councils on NPS-FM implementation, which has improved management practices around the country, although some councils noted that this may have come at the expense of other areas of work because they operate within finite budgets.

Councils said that the Water Directorate has done a good job building working relationships with council staff. They appreciate initiatives such as council exchanges, workshops, funding and training.

## Challenges with government support programme

There were many complaints about the delay of guidance materials to help with interpretation and implementation. The need for more timely guidance was a common theme, and councils requested that it was kept simple, to the point and non-prescriptive.

Staff turnover within the Ministry for the Environment was identified as a problem for building long-term working relationships and maintaining institutional knowledge.

There is a lack of evaluation of what works and what does not, for example, collaboration is promoted as a way to reduce litigation and increase community buy-in to policy, but there is no research to determine how successful it is or what it costs.

## Further need for support

Areas where councils and stakeholders asked for support include:

- more investment in modelling tools, particularly OVERSEER®
- training and funding for those in the community involved in collaborative processes

- more systems and tools to use nationwide, including tools to account for water use and sources of contaminants
- more support for implementing regional plans developed under the NPS-FM on the ground, including nationally recognised good management practices for various land uses
- training and funding for more experts, building capability in understanding environmental economics, social sciences and te ao Māori
- making national, regional and Crown research institute information readily accessible to all councils to help avoid duplication and paying for the same thing twice
- increasing public awareness of the requirements of the NPS-FM and limit setting.

## Conclusion: findings and where to next

The Government has put significant resources into implementing the NPS-FM. Councils said that the Water Directorate has done a good job building working relationships with council staff.

Some councils cited the potential for amendments to the NPS-FM and other national direction as factors limiting their implementation of the NPS-FM. While acknowledging that amendments to national direction can cause further work for councils to incorporate in plans, we do not believe this is a valid reason for not implementing the NPS-FM.

Councils have various options, for example omnibus plan changes, available to them for incorporating updates to national direction in their plans, and to wait until no more amendments are forthcoming is to do a disservice to their communities.

Councils also noted significant uncertainty about terms and concepts used in the NPS-FM. There is training and guidance for regional councils about many of the terms and concepts in the NPS-FM. The current amendments to the NPS-FM are intended to help clarify concepts.

The Water Directorate needs to continue providing support and guidance to regional councils, because they are primarily responsible for implementation. Having developed a better understanding of the impact of the NPS-FM on other groups, the Ministry for the Environment and Ministry for Primary Industries are increasing their support for non-council groups. Many areas of support requested by councils, iwi and other stakeholders overlap.

### Areas of focus for the next five years

- It is not enough for central government, local government and others to produce supporting material and consider their job done. The support also needs to be delivered in person either via roadshows, workshops or by experienced practitioners so that free and frank conversations about the process are possible.
- Government officials need to better understand issues that iwi and hapū face around the country and build working relationships.
- Central government needs to clarify how its environmental, economic and social goals align.

### **Additional areas of work**

- A rolling assessment of implementation should be undertaken, focusing on several councils per year to evaluate the objectives and limits set, how they are managing land uses within limits, and an assessment of whether we are likely to see outcomes being achieved in terms of improving the state of our waterways.
- Further metrics should be identified to collect on NPS-FM implementation. These may include metrics like council expenditure on water management (including community engagement, monitoring, compliance, enforcement), water use, how consents are being allocated (for water takes, land use and discharge of contaminants).
- Central and local government should work together to raise awareness of national direction, whether a National Policy Statement or a National Environmental Standard, among staff.
- Central government should to make sure that material supporting national direction is timely, readily available, easy to use and easy to find.