Policy and Planning Committee

Tuesday 20 November 2018
10.30am
Taranaki Regional Council, Stratford

Agenda for the meeting of the Policy and Planning Committee to be held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Tuesday 20 November 2018 commencing at 10.30am.

Members	Councillor N W Walker	(Committee Chairperson)
	Councillor M P Joyce	
	Councillor C L Littlewood	
	Councillor D H McIntyre	
	Councillor B K Raine	
	Councillor D L Lean	(ex officio)
	Councillor D N MacLeod	(ex officio)
Representative Members	Ms E Bailey	(Iwi Representative)
	Councillor G Boyde	(Stratford District Council)
	Mr J Hooker	(Iwi Representative)
	Councillor R Jordan	(New Plymouth District Council)
	Mr P Muir	(Taranaki Federated Farmers)
	Councillor P Nixon	(South Taranaki District Council)
	Mr M Ritai	(Iwi Representative)
Apologies	Councillor C S Williamson	

Notification of Late Items

Closing Karakia and Karakia for kai

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: Confirmation of Minutes – 9 October 2018

Approved by: A D McLay, Director-Resource Management

B G Chamberlain, Chief Executive

Document: 2156467

Resolve

That the Policy and Planning Committee of the Taranaki Regional Council:

1. takes as read and confirms the minutes of the Policy and Planning Committee meeting of the Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Tuesday 9 October 2018 at 10.35am
2. notes the recommendations therein were adopted by the Taranaki Regional Council on 30 October 2018.

Matters arising

Appendices

Document #2135216 – Minutes Policy and Planning Committee

Minutes of the Policy and Planning Committee Meeting of the Taranaki Regional Council, held in the Taranaki Regional Council Chambers, 47 Cloten Road, Stratford, on Tuesday 9 October 2018 at 10.35am.

Members	Councillors	N W Walker	(Committee Chairperson)
		M P Joyce	
		C L Littlewood	
		D H McIntyre	
		B K Raine	
		C S Williamson	
		D L Lean	(ex officio)
		D N MacLeod	(ex officio)
Representative Members	Ms	E Bailey	(Iwi Representative) (via *Zoom* audio/visual)
	Councillor	G Boyde	(Stratford District Council)
	Mr	J Hooker	(Iwi Representative)
	Councillor	R Jordan	(New Plymouth District Council)
	Mr	P Muir	(Taranaki Federated Farmers)
	Councillor	P Nixon	(South Taranaki District Council)
	Mr	M Ritai	(Iwi Representative)
Attending	Messrs	B G Chamberlain	(Chief Executive)
		A D McLay	(Director-Resource Management)
		G K Bedford	(Director-Environment Quality)
		R Ritchie	(Communications Manager)
		C L Spurdle	(Planning Manager)
		S Tamarapa	(Iwi Communications Officer)
		P Ledingham	(Communications Officer)
	Mrs	K van Gameren	(Committee Administrator)
	Messrs	T Shanley	(Project Manager Towards Predator-Free)
		B E Pope	(Compliance Manager)
		R Phipps	(Science Manager)
		G Marcroft	(Policy Analyst)
		K Holswich	(Iwi Representative)
	Ms	F Mulligan	(Iwi Representative)
	Mr	H Eriwata	(Iwi Representative)
	Mr	G Pittman	(Wrightson Consulting)
	Four Members of the media.		
Apologies	There were no apologies.		

Notification of Late Items

General Business – Government's blueprint to improve fresh water quality Hon D Parker, Minister for the Environment

1. Confirmation of Minutes – 28 August 2018

Resolved

THAT the Policy and Planning Committee of the Taranaki Regional Council

1. takes as read and confirms the minutes and confidential minutes of the Policy and Planning Committee meeting of the Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Tuesday 28 August 2018 at 10.30am
2. notes that the recommendations therein were adopted by the Taranaki Regional Council on 18 September 2018.

Williamson/Hooker

Matters Arising

There were no matters arising.

2. Update on Towards Predator-Free Taranaki project

2.1 Mr A D McLay, Director-Resource Management, spoke to the memorandum providing an update to the Committee on the progress of the *Towards Predator-Free Taranaki* project.

2.2 Mr T Shanley, Project Manager Towards Predator Free, provided a presentation *Towards Predator-Free Taranaki* in support of the item.

Recommended

That the Taranaki Regional Council:

1. receives this memorandum *Update on Towards Predator-Free Taranaki project*
2. notes the progress and milestones achieved in respect of the urban and rural predator control and the zero density possum projects of the *Towards Predator-Free Taranaki* project.

Lean/Joyce

3. Proposed Coastal Plan for Taranaki: Report on submissions

3.1 Mr C L Spurdle, Planning Manager, spoke to the memorandum introducing an officers report on submissions to the Proposed Regional Coastal Plan for Taranaki and to recommend that the report be circulated to submissters as a basis for pre-hearing discussion.

Recommended

That the Taranaki Regional Council:

1. receives the memorandum on the *Proposed Coastal Plan for Taranaki: Report on Submissions*
2. agrees to distribute the report to submitters as a basis for pre-hearing meetings.

Williamson/Boyde

4. New Zealand Marine Oil Spill Readiness and Response Strategy 2018-2022

4.1 Mr A D McLay, Director-Resource Management, spoke to the memorandum introducing the *New Zealand's Marine Oil Spill Readiness and Response Strategy 2018-2022* and the Council's role in assisting Maritime New Zealand to implement the Strategy.

Recommended

That the Taranaki Regional Council:

1. receives the memorandum *New Zealand Marine Oil Spill Readiness and Response Strategy 2018-2022*
2. notes the Strategy is important for Taranaki given it is the only oil producing region in New Zealand
3. notes the important role of the Council in assisting Maritime New Zealand to implement the Strategy.

Littlewood/Raine

5. SEM Freshwater Physico-chemical monitoring programme 2016-2017 report

5.1 Mr G K Bedford, Director-Environment Quality, spoke to the memorandum presenting an update to the Committee on the latest results of the Council's annual state of the environment monitoring programme for fresh water quality (physicochemical measurers).

5.2 A presentation *SEM Freshwater physico-chemical monitoring programme 2017/2017 report* was provided in support of this item.

Recommended

THAT the Taranaki Regional Council:

1. receives this memorandum noting the preparation of a report on the state of and trends in regional physicochemical water quality data for Taranaki, for 2016-2017 and over the periods 1995-2017 and 2010-2017 respectively, together with information on compliance with the National Objectives Framework and regional guidelines

2. receives the report *Freshwater Physicochemical Programme State of the Environment Monitoring Annual Report 2016-2017 Technical Report 2017-64*
3. notes the findings of the trend analyses of data from the SEM physicochemical programme
4. notes the findings of the analysis of water quality state data from the SEM physicochemical programme
5. notes the findings of examination of the representativeness of the existing monitoring network
6. adopts the specific recommendations therein.

Boyde/Raine

6. Report on Advocacy and Response activities for the 2017/2018 year

6.1 Mr A D McLay, Director-Resource Management, spoke to the memorandum reporting on advocacy and response activities for the 2017/2018 year.

Recommended

That the Taranaki Regional Council:

1. receives the memorandum *Report on Advocacy and Response activates for the 2017/2018 year*
2. notes that twenty-four (24) submissions were made during the year on the policy initiatives of other agencies
3. notes that senior staff were also involved in various working parties or other fora on central and local government policy development and review projects.

Bailey/Littlewood

Councillor M P Joyce left the Policy and Planning Committee meeting at 12.00pm.

7. Submission on proposed policy for regulating decommissioning under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012

7.1 Mr A D McLay, Director-Resource Management, spoke to the memorandum seeking endorsement of a submission made on proposed policy for regulating decommissioning of offshore oil and gas facilities under the *Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012*. The submission was sent by the due date of 21 September 2018.

Recommended

That the Taranaki Regional Council:

1. receives the memorandum *Submission on proposed policy for regulating decommissioning under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012*
2. endorses the submission.

Williamson/MacLeod

General Business

Taking action to improve water Quality – Minister Hon. D Parker

Mr A D McLay, Director-Resource Management, provided an update to the Committee on the latest Government announcement (8 October 2018) to improve the state of waterways tha promises a noticeable improvement in water quality within five years. New rules are proposed by 2020 to stop degradation of freshwater quality through a new National Policy Statement for Freshwater Management, a new National Environmental Standard and amendments to the Resource Management Act. Council staff will review the announcement and report back to the Committee on the implications for Taranaki and the Council's policies and programmes.

Closing Karakia Mr M Ritai (Iwi Representative) gave the closing Karakia to the Policy and Planning Committee and Karakia for kai (lunch).

There being no further business, the Committee Chairperson Councillor N W Walker, declared the open meeting of the Policy and Planning Committee meeting closed at 12.10pm.

Confirmed

Chairperson _____

N W Walker

Date **20 November 2018**

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: Climate change reports

Approved by: AD McLay, Director – Resource Management

BG Chamberlain, Chief Executive

Document: 2133012

Purpose

The purpose of this memorandum is to introduce four reports released recently by the Government, on climate change issues. The reports are available for Members' information.

Executive summary

The first two reports – *Improvements to the New Zealand Emissions Trading Scheme* and *A better ETS for Forestry: Proposed amendments to the Climate Change Response Act 2002* – set out proposals for improvements to the New Zealand Emissions Trading Scheme (NZ ETS). These form part of New Zealand's commitments under the Paris Agreement, which came into force in 2016.

A review of the NZ ETS carried out in 2017, identified a number of problems with the scheme and with the provisions governing forestry. Among them was that the Government does not have the tools to effectively manage the supply of units into the market, that there is significant regulatory uncertainty for participants and that a number of technical and operational features need improvement.

In relation to forestry, the current carbon accounting approach was found to be challenging for many and combined with the complex and bureaucratic operating system of rules and procedures, presented significant barriers to people entering the scheme. Earlier this year, the Council was successful in gaining funding from the Provincial Growth Fund for the development of an easy to use digital portal to encourage greater tree planting on Taranaki hill country properties. The portal will include guidance on the NZ ETS.

The proposals in the both discussion documents make a large number of detailed suggestions or propose options for how to address these problems.

Consultation on both of these documents closed on 21 September 2018.

The Council did not formally submit on the documents preferring instead to work locally with willing landowners while the Government sorts out the wide ranging and many detailed technical and operational problems with the NZ ETS and consulting directly with industry and forestry interests.

The *Climate Change Projections for New Zealand* report analyses expected changes in New Zealand's climate such as temperature, rainfall and other climate variables, out to 2120, and draws heavily on climate model simulations from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment report. For the first time the report includes predictions from a detailed New Zealand regional climate model run by NIWA.

The report projects a marked seasonality and variability in rainfall across regions. It is very likely that for winter and spring there will be an increase in rainfall for the west of both the North and South Islands, with drier conditions in the east and north. For summer it is likely that there will be wetter conditions in the east of both islands, with drier conditions in the west and central North Island. Drought severity is projected to increase in most areas of the country, except for Taranaki-Manawatu, West Coast and Southland.

The report on *Hydrological projections for New Zealand rivers under climate change*, prepared by NIWA for the Ministry for the Environment, examines the impacts of climate change on hydrological conditions at 20 river mouths around the country. The focus of the report is on potential future changes in New Zealand river hydrology at 20 locations across the country out to 2099.

Finally, the memorandum outlines how our current work programmes are addressing climate change issues.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum *Climate change reports*
2. notes the many problems and complexities with the New Zealand Emissions Trading Scheme that the Government is seeking to address
3. notes the findings of the reports *Climate Change Projections for New Zealand* and *Hydrological projections for New Zealand rivers under climate change*
4. notes that the Council's current work programmes are addressing climate change issues consistent with its existing statutory duties and obligations
5. notes that further work on climate change policy is underway within central government.

Background

This series of reports represents the latest policy proposals and information updates released by the Government on climate change issues. The reports and where they can be found on the relevant Government websites are as follows:

Improvements to the New Zealand Emissions Trading Scheme
http://www.mfe.govt.nz/publications/climate-change/improvements-new-zealand-emissions-trading-scheme

A Better ETS for Forestry: Proposed amendments to the Climate Change Response Act 2002
https://www.mpi.govt.nz/news-and-resources/consultations/a-better-ets-for-forestry

Climate Change Projections for New Zealand
http://www.mfe.govt.nz/publications/climate-change/climate-change-projections-new-zealand

Hydrological projections for New Zealand rivers under climate change
http://www.mfe.govt.nz/publications/climate-change/hydrological-projections-new-zealand-rivers-under-climate-change

The first two reports – *Improvements to the New Zealand Emissions Trading Scheme* and *A Better ETS for Forestry* – set out proposals for improving New Zealand's emissions trading scheme (NZ ETS). The NZ ETS was introduced in 2008 and is New Zealand's main tool for reducing greenhouse gas emissions and meeting our emissions reduction targets. It does this by putting a price on greenhouse gas emissions from most sectors of the economy and encouraging investment in lower emissions technologies and practices, including forestry as a carbon sink.

The proposed changes to the NZ ETS form part of New Zealand's commitments under the Paris Agreement, which New Zealand ratified in 2016, and which will take effect from 2020. Under the Paris Agreement, New Zealand has agreed to reduce greenhouse gas emissions by 30% below 2005 levels by 2030. This will mean New Zealand will have to find additional units to meet the target or face a significant deficit with associated financial costs. Amendments to the Climate Change Response Act 2002, to enable compliance with the Paris Agreement, is expected to be made in 2019 in conjunction with the NZ ETS changes proposed.

A review of the NZ ETS carried out in 2017, identified a number of problems with the scheme. Among them was that the Government does not have the tools to effectively manage the supply of units into the market, that there is significant regulatory uncertainty for participants and that a number of technical and operational features need improvement.

The proposals in the *Improvements to the New Zealand Emissions Trading Scheme* make suggestions for how to address these problems. It does not consider the role of agriculture in the NZETS as this is expected to be considered by the Climate Change Commission in due course.

At the same time, and as part of the consultation process on improving the NZ ETS, the Government released a separate discussion document, *A Better ETS for Forestry*, with proposals for improvements to forestry in the NZ ETS. Forestry is important for New Zealand as a means of reducing net emissions of carbon but the 2017 review found the scheme could be more effective in supporting forestry participants and encouraging new forests to be planted. In particular, the current carbon accounting approach for forestry was found to be challenging for many and combined with the complex and bureaucratic

operating system of rules and procedures, presented significant barriers to people entering the scheme.

On the matter of complexity, Members will recall that earlier this year, the Council was successful in gaining funding via the Provincial Growth Fund, for the development of an easy to use business guide to tree planting on Taranaki hill country farms. We are aware that there is currently a gap in information on incorporating tree planting in farm business models. The guide will take the form of a digital portal or platform that will allow hill country farmers to access from one site, information on the benefits and costs and returns on investment on tree planting, which we fully expect, will encourage the planting of more trees. The portal will include guidance on the NZ ETS.

Consultation on both of the above documents closed on 21 September 2018.

The Council did not formally submit on the documents preferring instead to work locally with willing landowners while the Government sorts out the wide ranging and many detailed technical and operational problems with the NZ ETS and consulting directly with industry and forestry interests.

The *Climate Change Projections for New Zealand* report addresses expected changes in New Zealand's climate such as temperature, rainfall and other climate variables, out to 2120, and draws heavily on climate model simulations from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment report (the IPCC's latest report). For the first time the report includes predictions from a detailed New Zealand regional climate model run by NIWA.

The report on *Hydrological projections for New Zealand rivers under climate change*, prepared by NIWA for the Ministry for the Environment, examines the impacts of climate change on hydrological conditions at 20 river mouths around the country. The focus of the report is on potential future changes in New Zealand river hydrology (for example changes in mean flow, flow extremes and flow exceedances) at 20 locations across the country out to 2099.

The effects of climate change on the water cycle are becoming increasingly important and are expected to become more pronounced by the end of the century. This is of growing concern to New Zealand given the many important values of fresh water to our environment and to our communities and economy.

Discussion

A brief discussion of each of the four documents is set out below, followed by a brief discussion of the Council's current work programmes and what these mean for climate change.

Changes to the ETS

As noted above, there are two sets of proposals to improve the NZ ETS. The first deals with the overall ETS framework, proposing changes designed to make it a 'credible and well-functioning scheme' that assists New Zealand in meeting its climate change targets. The second set of proposals relate to forestry and aims to reduce the complexity, uncertainty and other barriers to forestry owners becoming part of the NZ ETS.

Improvements to the NZ ETS

This document essentially deals with how the NZ ETS can be strengthened overall so that it can achieve its primary objective of helping New Zealand meet its climate change targets.

The Government proposes to introduce an annual process for setting and announcing NZ ETS unit supply volumes over a five-year rolling period. This will set an overall limit (i.e. a cap) on the number of units supplied into the NZ ETS market, and allow this to be managed over time.

The document also considers proposals on specific features of the NZ ETS, including auctioning; the price ceiling; limiting the use of international units; industrial allocations and a number proposals to do with operational matters such as market governance and market information proposals and compliance.

The Government proposes to auction New Zealand Units (NZUs) using a single round, sealed bid, uniform price format. This type of auction is considered necessary to support overall market efficiency that will also help align the volume of NZUs with our emissions targets. Feedback has been sought on who can participate in auctions, how frequently they should be held and what the proceeds should be earmarked for.

There are a number of technical matters associated with price ceiling proposals that the Government has also specific sought feedback on.

An important component of a cap on emissions, are limits on the use of international units that NZ ETS participants can use if the scheme reopens to international carbon markets. The Government proposes that the limit on international units is managed through the 'coordinated decision-making process'. This would involve an annual announcement of the limit for the following 5 years and whether these could be purchased directly through the market or indirectly via the Government purchasing international emissions reductions.

The Government has also sought feedback on how decisions to phase-down industrial allocation should be made.

ETS and Forestry

The rules around the accounting approach to forestry, what areas are eligible for inclusion in the NZ ETS, the process for gaining eligibility, recognition of mitigation from harvested wood products and the role of permanent vs rotation wood forests, among other issues, are highly complex, uncertain and subject to various interpretations.

These are major disincentives for forest owners and landowners who might want to enter the NZ ETS.

One of the main changes proposed is to move from a 'carbon stock change' accounting system to an average accounting system approach. Essentially this is intended to simplify the accounting system, reduce financial risks on harvest and encourage new forests for timber production purposes.

There are advantages with an averaging approach but some matters of detail that will need to be worked through. For example, flexibility needs to be retained to allow for change from production forests to permanent forest part way through the growing cycle. There is also the question of determining average carbon yield which will vary from region to region and

according to forest type. Options for transitioning existing forests to the new accounting system will also have to be considered.

Creating a permanent forests category in the ETS and discontinuing the Permanent Forest Sink Initiative (which was established prior to the ETS) is also recommended in the discussion document as are options for recognising the emissions mitigation from harvested wood products.

There are a number of operational issues dealt with including providing much needed certainty on eligibility to enter the NZ ETS before planting is carried out.

Greater detail of the proposals for improvements to the NZ ETS is contained in the two discussion documents.

As noted above, legislative changes to give effect to decisions on the NZ ETS (and New Zealand's commitments under the Paris Agreement) are expected to be made in 2019 via amendments to the Climate Change Response Act 2002 and subsequent changes to regulations.

Members should note that proposed changes to the NZ ETS sit within the Government's broader target setting and emissions budget setting processes. These processes form part of the ongoing work associated with the Zero Carbon Bill and the Climate Change Commission.

Climate change projections for New Zealand

This report draws heavily on climate model simulations from the IPCC's Fifth Assessment Report (the most recent) completed in 2013.

Projected overall changes for New Zealand are similar to those from the previous assessment published in 2008. This report is notable, however, for including not only predictions from interpreting global climate models, but also, for the first time, those from a detailed New Zealand regional climate model run on the NIWA supercomputer. This has allowed an 'unprecedented' level of detail and robustness to the information provided.

Possible projections for future warming are of the order of 0.2-1.7^{o}C by 2040, 0.1-4.6^{o}C by 2090, and 0.3-5.0^{o}C by 2110.

Projected changes in rainfall show a marked seasonality and variability across regions. For example, it is very likely that for winter and spring there will be an increase in rainfall for the west of both the North and South Islands, with drier conditions in the east and north. For summer it is likely that there will be wetter conditions in the east of both islands, with drier conditions in the west and central North Island.

Moderately extreme rainfall is likely to increase in most areas, with the largest increases being seen in areas where mean rainfall is also increasing, such as the West Coast. Very extreme rainfall is likely to increase in all areas. Drought severity is projected to increase in most areas of the country, except for Taranaki-Manawatu, West Coast and Southland. Although these last two findings on extremes are not new, they are more robust because of the more detailed regional information that is now available.

Hydrological changes for New Zealand rivers under climate change

This report looks at the potential impacts of climate change at 20 river mouths around the country. A suite of 13 hydrological variables covering seasonal mean flows, flow extremes and flow exceedances, are examined. Differences between baseline conditions and mid-century (2031-2050) or late-century (2080-2099) are analysed for any patterns that would suggest a climate change effect.

The report concludes that few hydrological changes are discernible by mid-century. By late-century, North Island rivers are generally projected to experience declines in many flow characteristics, including seasonal flows and mean annual low flows. South island rivers on the other hand, are generally projected to experience increases in seasonal and annual mean flows. However, the only Taranaki river in the study – the Waiongana River – is the only North Island river to exhibit an increase in flow variables. This is consistent with findings that the north-east part of the South Island and the southern and mid-western parts of the North Island are transitional zones between the two large-scale areas of decreases and increases.

The report cautions against interpretations of the numerical significance of the results as no statistical tests have been applied to the data and nor have any hydrological changes been assessed for their practical relevance locally.

Taranaki context

The two climate change reports will provide useful general information for inputting into the Council's ongoing policy and operations work, while the Council awaits the Government's review of the NZ ETS and the outcomes of its consultation on the Zero Carbon Bill and the proposed Climate Change Commission. Insofar as local government is concerned, the Zero Carbon Bill may well clarify and add to local government's statutory roles and responsibilities in relation to climate change.

In the meantime, our current work programmes are addressing climate change issues consistent with our statutory duties and obligations, particularly with respect to adaptation to the effects of climate change. Many of our statutory functions have co-benefits i.e. they are carried out for a range of reasons while also having climate change benefits.

For example, our land management officers are providing advice on sustainable land management, including land retirement and forestry development opportunities to hill country farmers that will have climate change mitigation and adaptation benefits. As previously mentioned, we have received funding from the Provincial Growth Fund to develop an easy to use digital portal to encourage farmers to use the information contained on the portal to promote the planting of more trees.

Our riparian management programme, working alongside landowners to plant thousands of kilometres of streambanks, is also a major contributor to climate change adaptation and mitigation as is our pest management and biodiversity programmes.

We also collaborate with district councils in the region to facilitate a regional approach to waste minimisation in line with the regional waste management and minimisation strategy and the waste management and minimisation plans of district councils. These look to

promote zero waste practices, cleaner production and recycling initiatives that will also reduce greenhouse gas emissions from landfills.

Our hazard management and civil defence emergency management responsibilities take into account climate change forecasts. For example, our river control and flood protection upgrades of the Lower Waitara and Waiwhakaiho rivers, modelled future climate change scenarios and these have been built into the flood protection works.

Our contracted public transport services promote the use of public transport in preference to private cars and there are ongoing discussions around trialling hydrogen fuel on bus services in New Plymouth. The Council has also looked at its own energy use and vehicle fleet operations with a view to reducing energy demand and promoting greater fuel efficiency.

In relation to the RMA, the Council's resource management plans and resource consenting requirements consider climate change factors. The RMA requires councils to have particular regard to the effects of climate change when carrying out their functions under the Act (section 7, RMA). The avoidance or mitigation of natural hazards (for example flooding and sea level rise) is a function of regional councils that is particularly related to the effects of climate change. However, when considering applications to discharge greenhouse gases, councils are expressly prohibited from considering the effects of those discharges on climate change, except to the extent that the use and development of renewable energy enables a reduction in greenhouse gas discharges (section 104E).

Specific policy has been included on climate change mitigation and adaptation in the *Regional Policy Statement for Taranaki*. Policy has also been included in the *Proposed Coastal Plan* currently being progressed under the RMA. Updated provisions will appear in the *Proposed Land and Water Management Plan* in due course.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan

and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: **Report of the Biodiversity Collaborative Group and draft *National Policy Statement on Indigenous Biodiversity***

Approved by: A D McLay, Director – Resource Management

B G Chamberlain, Chief Executive

Document: 2151327

Purpose

The purpose of this memorandum is to introduce the report of the Biodiversity Collaborative Group, which contains the Group's Draft National Policy Statement for Indigenous Biodiversity, and to outline the potential implications of the report for the Council and regional sector.

The full report can be found at https://www.biodiversitynz.org/uploads/1/0/7/9/107923093/report_of_the_biodiversity_collaborative_group.pdf

A media release from the Associate Minister for the Environment, the Hon Nanaia Mahuta can be found at https://www.beehive.govt.nz/release/indigenous-biodiversity-report-released

Executive summary

The Biodiversity Collaborative Group (BCG) was established by the Minister for the Environment in early 2017 to develop national level policy for indigenous biodiversity.

The development of a national policy statement on biodiversity has had a long and somewhat difficult history and dates back to 2011. A draft NPS was not progressed at that time due to a lack of stakeholder agreement on its content.

The BCG's report includes a draft National Policy Statement on Indigenous Biodiversity together with recommendations for complementary and supporting measures. In receiving the report the Associate Minister for the Environment, the Hon Nanaia Mahuta has said the Government will consider the report's recommendations and has instructed officials to begin work on an NPS for public consultation.

Regional councils have been involved in the BCG's work as active observers and not as members of the core group.

Regional councils as a sector have a number of concerns with the report and the draft NPSIB. These include a lack of clarity about what the NPSIB is trying to achieve, roles and responsibilities are not clearly defined and that implementation costs for councils are likely to be high. A think piece prepared by regional councils calls for these and other issues to be addressed as part of a review of the national strategy for biodiversity before a NPSIB is finalised.

The regional sector has advocated strongly for the overall strategy to be put in place first and then to develop a NPSIB as one of the methods of implementing the strategy. Recent feedback from MfE officials is that they have taken this on board and further work on the NPSIB will await progress on the New Zealand Biodiversity Strategy.

As far as this Council is concerned, we are widely regarded as a leading example in biodiversity management in New Zealand. The Council works collaboratively with all stakeholders and with private landowners to progress biodiversity protection and enhancement throughout the region with a focus on active management. As a result, the Council is already investing heavily in biodiversity work but the current proposals are likely to see the Council incurring significantly increased costs.

The review process will need to devise a solution that is fit for purpose, takes into account the good work being carried out around the country and look to fund any extra work required on a fair and equitable basis.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum Report of the Biodiversity Collaborative Group and draft *National Policy Statement on Indigenous Biodiversity*
2. notes the concerns of the regional sector with aspects of the report and of the draft NPSIB
3. notes that work on reviewing New Zealand's biodiversity strategy should precede further work on the draft NPSIB.

Background

The Biodiversity Collaborative Group (BCG) was established by the Minister for the Environment in early 2017 to develop national level policy for indigenous biodiversity in the face of ongoing declines in our native plants and animals and their ecosystems. Their report, and accompanying draft *National Policy Statement for Indigenous Biodiversity* (NPSIB), is the outcome of this work.

The core members of the BCG were the Royal Forest and Bird Protection Society, Federated Farmers, the New Zealand Forest Owners Association, Environmental Defence Society, a representative of the Iwi Chairs Forum and representatives from infrastructure industries. Local and central government representatives were involved as active observers and two targeted workshops were held with territorial authority representatives.

The Council's Director – Operations, Stephen Hall, represented the Regional Biomanagers group as an observer.

Members may recall that the development of a national policy statement on biodiversity has had a long and somewhat difficult history. The Government approved consultation on the first NPS for indigenous biodiversity in January 2011. This was based on the Statement of National Priorities for protecting rare and threatened native biodiversity on private land issued by the Minister of Conservation and Minister for the Environment in 2007. Its focus was on the regulation of private land for biodiversity purposes.

The Council made a submission on the NPS at the time stating amongst other things, that supporting landowners with practical assistance was key to promoting biodiversity protection and enhancement on private land. The submission also raised the issue of the costs to local councils of implementing the NPS and called for a more equitable sharing of costs.

That version of the NPSIB was not progressed due to a lack of stakeholder agreement on its content and work on a biodiversity NPS fell into abeyance until the BCG was established in March 2017.The terms of reference for the BCG included developing a draft NPSIB, and making recommendations for complementary and supporting measures to accompany the NPS.

The draft NPS developed by the BCG contains six objectives and twenty-two policies. These cover a wide range matters, including identifying significant natural areas, dealing with the effects of climate change, providing for Māori cultural activities and Māori land, protecting highly mobile indigenous fauna, maintaining connectivity and buffering, and the role of biodiversity strategies, amongst others. It contains definitions and a number of appendices.

Included among the various supporting measures are such things as empowering the Department of Conservation to provide national leadership of the biodiversity management system, supporting and better coordinating biodiversity efforts through regional community hubs and investigating new funding mechanisms for indigenous biodiversity protection on private land and on Māori land.

The report includes a number of references to where the BCG could not reach agreement among its members on various matters or where the Group did not have time to develop policy. These provisions are clearly marked in the report.

The Government has indicated that it will consider the report's recommendations and that it has instructed officials to begin preparing a NPS for public consultation, based on the BCG's draft NPS. Work on the NPSIB is to be undertaken in the context of a 'refresh' of the New Zealand Biodiversity Strategy recently announced by the Minister of Conservation.

Discussion

Regional councils have been involved in the BCG's work over the last 18 months as active observers.

At the end of last year, the regional sector released a think piece on biodiversity management in New Zealand[1], which has feed into the BCG's work. The think piece outlined five key shifts that regional councils considered are needed to make a 'step change' in the national state of biodiversity. These were:

- The need for strong national leadership and clarity of roles and responsibilities;
- The need for agreement on where we should focus our efforts at national, regional and local levels i.e. a prioritisation process is required;
- The importance of a strategic plan and delivering joined-up action across all interests;
- The need to understand what success looks like, and how to measure it; and
- The need for modern, fit-for-purpose frameworks, including legislation, to help achieve agreed goals.

In terms of actual delivery of results on the ground, the regional sector views active management of biodiversity as the most urgent current intervention needed to address New Zealand's biodiversity decline and that more effort is needed in this area. This requires obtaining buy-in from private landowners, working in partnership with them to achieve good biodiversity outcomes, having sound advice to guide practical decisions and access to money and resources to make it happen. All this needs to take place in the context of a strategy that contains agreed biodiversity goals and priorities for the region.

This is the approach we have taken in Taranaki and it is paying dividends. Our voluntary Key Native Ecosystems programme involving such things as pest control, fencing and planting, condition assessment and monitoring of wetlands and native bush areas, continues to go from strength to strength. It is achieving excellent results that would not be achieved through a regulatory approach.

It will be important to ensure that any new NPS does not create unintended consequences that could slow current community and landowner effort and momentum on the many successful biodiversity protection and enhancement projects around the country.

In relation to the draft NPS, one of the core issues for regional councils with the BCG's report is that it is not clear what the NPS on indigenous biodiversity is trying to achieve. A clear understanding of the problem and what the desired outcomes for New Zealand's biodiversity are needed. Agreeing on the intended outcomes will also help determine whether a NPSIB developed under the RMA is the best mechanism for achieving some or any of the intended outcomes.

On this matter, the regional sector is of the view that these questions first need to be addressed as part of a national strategy. The place to do this is potentially with the review of the New Zealand Biodiversity Strategy first adopted in 2000.

As a sector, we have advocated strongly for the overall strategy to be put in place first and then to develop a NPSIB as one of the methods of implementing the strategy. Recent feedback from MfE officials is that they have taken this on board and further work on the NPSIB will await progress on the New Zealand Biodiversity Strategy.

[1] The think piece was entitled *Addressing New Zealand's Biodiversity Challenge: A regional council think piece on the future of biodiversity management in New Zealand* (2017).

A number of other concerns have also arisen with respect to the draft NPSIB. One that has arisen among the active observers to the BCG's work is that roles and responsibilities for biodiversity management are not clearly defined. Clarity of roles and responsibilities is critical to ensuring a NPSIB is meaningful and effective and produces good outcomes. The regional sector's view is that further work on roles and responsibilities, particularly with respect to territorial authorities and regional councils, should be undertaken before a NPS is finalised.

Further work also needs to be done on implementation implications for councils. There are many areas where local government is being told to do more, but with no commitment to increased funding support from central government. This is despite the fact that we are doing a lot of work on biodiversity now with finite budgets and limited resources.

Policy 4 of the draft NPSIB for example requires territorial authorities working with regional councils to schedule and map all significant natural areas and Policy 13 requires us to map and describe species, populations and ecosystems that are taonga. Again, Policy 14 requires us to survey the presence/absence of highly mobile indigenous fauna.

There are also many other requirements contained in the draft NPSIB that will require added technical and scientific work for councils and changes to statutory plans that will impose extra costs and resourcing requirements. Policy 22 requires a schedule itemising all significant natural areas to be completed in accordance with criteria in Appendix 1, within 5 years of the gazettal of the NPSIB. The criteria for determining significance are likely to run counter to our current biodiversity approach of prioritising the protection of our most at risk species or habitats.

There is also a requirement for councils to notify a plan change within 6 years. This comes on top of a range of other requirements to amend and review RMA plans that many councils will face difficulties in adequately resourcing.

There are also requirements for regional councils to prepare mandatory but non-regulatory biodiversity strategies. The purpose of such strategies is to promote a landscape-scale enhancement and restoration vision for the region's biodiversity. Detail as to the content of regional biodiversity strategies is provided through a list of principles set out in Appendix 5 of the NPSIB. This Council has a non-statutory biodiversity strategy and this is working well, but a review will be necessary to ensure compliance with the draft NPS.

There is also a question of whether another instrument dictated under the RMA is necessary given the existence of regional policy statements and regional plans, or even long-term plans and annual plans under the Local Government Act, all of which can contain non-regulatory provisions for biodiversity protection and enhancement.

Resourcing all of this work will be a significant issue for councils, which if not dealt with, will mean the work directed by the NPS will not be done or alternatively resources will be directed away from other biodiversity work that councils are undertaking.

As to what should be included in a NPS on indigenous biodiversity, the regional council think piece previously referred to states that it should be simple and focused on a small number of important issues and avoid trying to solve everything at once. It could usefully contain the following:

- Clear definitions;
- A clear statement of the RMA objectives for biodiversity on private land;
- Clarity of roles and responsibilities;
- Set objectives and policies that are realistically achievable;
- Provide clarity on priorities and how to determine them;
- Determine monitoring and reporting responsibilities;
- Set a process for determining community values and outcomes and developing appropriate place-based intervention;
- How to support communities who bear an unequal share of responsibility for biodiversity given that the distribution of remaining biodiversity is not equally spread across the country; and
- Consideration of suitable interventions in the context of different communities, different issues and different needs – there is no 'one-size-fits-all' approach.

The draft NPSIB as proposed by the BCG is heavily oriented towards councils and there are concerns with the implications of a number of provisions for practical implementation. The draft NPS does not adequately and clearly state the purpose of the instrument or set out the significant role that central government has in leading, supporting and promoting the achievement of biodiversity protection and enhancement under the RMA.

The think piece is a useful piece of work and could be a platform for future advocacy.

In summary, the regional sector's view is that a review of New Zealand's biodiversity strategy should happen first and should precede work on a NPSIB. The BGC's report would provide an input into this higher-level work. It should look to define outcomes for biodiversity, which will vary around the country, and clearly identify roles and responsibilities for achieving them. More attention will need to be given to the critical importance of working alongside landowners to support active management, and greater resourcing should be made available to enable this to happen.

As far as this Council is concerned, we are widely regarded as a leading example in biodiversity management in New Zealand. The Council works collaboratively with all stakeholders and with private landowners to progress biodiversity protection and enhancement throughout the region with a focus on active management. As a result, the Council is already investing heavily in biodiversity work but the current proposals are likely to see the Council incurring significantly increased costs.

The review process will need to devise a solution that is fit for purpose, takes into account the good work being carried out around the country and look to fund any extra work required on a fair and equitable basis.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy & Planning Committee

Subject: Regional targets for swimmable rivers and lakes in Taranaki

Approved by: A D McLay, Director-Resource Management

B G Chamberlain, Chief Executive

Document: 2137948

Purpose

The purpose of this memorandum is to introduce a report setting out regional targets for swimmable rivers and lakes in Taranaki. This report gives effect to Policy A6 requirements of the *National Policy Statement for Freshwater Management* (NPS-FM).

A copy of the report *Regional targets for swimmable rivers and lakes in Taranaki* is attached to this memorandum.

Executive summary

- The *National Policy Statement for Freshwater Management* (NPS-FM) directs all regional councils to set targets to improve the quality of fresh water so rivers and lakes are suitable for primary contact more often.
- The NPS-FM does not define 'suitability'. However, the NPS-FM sets out five bands for categorising water quality in terms of its bacteriological state, and the Government's national targets are based around increasing the percentage of rivers that are in the top 3 of the 5 bands. The Council is taking the same approach in its own target-setting.
- Policy A5 of the NPS-FM requires the Taranaki Regional Council (the Council) to develop regional targets and make these targets available to the public by 31 December 2018.
- A taskforce set up by central and local government has undertaken modelling projection work and has advised the Council that current overall swimmability for the Taranaki region is estimated at 39% of rivers and 97% of lakes. Of note all regions with significant dairying fail to meet the national target which is for 80% of rivers and lakes to be swimmable by 2030.
- Of note, the current level of swimmability in Taranaki is modelled to be higher than for most other North island regions with significant dairying activity, and the projected gains to be made from investment and projects already committed, are higher for Taranaki than for any other region in New Zealand.

- Based on mitigation works already committed in the region, the Taskforce's modelling shows swimmability will improve to 67.4% of rivers by 2030. Of note, MfE modelling shows that, at 97% of lakes being swimmable, Taranaki has already exceeded the national target of 80% set for lakes.
- The Council continues to have serious concerns and reservations in relation to the assumptions and limitations of the modelling and the setting of targets. Nevertheless, as required, the attached report has been prepared and meets Policy A5 requirements of the NPS-FM.
- The Council will continue to take positive action towards improving water quality for primary contact through the riparian management programme, the diversion of farm dairy effluent discharges to land and the active promotion of good management practices to improve water quality across all sectors. The Council will continue to monitor water quality and report trends to the community. The Council will also continue to improve the suitability of fresh water for primary contact through attention to other contaminants (not just *E. coli*), for example water clarity and periphyton growths, and monitor and report flow rates and levels.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum and adopts the targets set out in the attached report *Regional targets for swimmable rivers and lakes in Taranaki*
2. notes that the community will not be able to meet the Government's national targets of 80% of rivers classified as swimmable by 2030 and 90% by 2040 but will exceed that target for lakes
3. agrees that the regional targets for swimmability be made available to the public by 31 December 2018 as required by the *National Policy Statement for Freshwater Management*
4. agrees to send a copy of the report to the Ministry for the Environment.

Background

Members will recall that in 2017, the previous Government amended the *National Policy Statement for Freshwater Management* (NPS-FM) to, amongst other things, introduce national targets for water quality improvement in rivers and lakes as follows:

- 80% of specified rivers and lakes are suitable for primary contact (e.g. swimming) by 2030; and
- 90% are suitable by 2040.

The NPS-FM defines the term "*specified rivers and lakes*" as rivers that are fourth order or above (i.e. mid to lower catchment) and lakes with a perimeter greater than 1,500 meters. "*Primary contact*" is defined as people's contact with water that involves immersion, including swimming.

To achieve the national targets, Policy A6 of the NPS-FM directs regional councils to set regional targets.

As was the case for other regions, the process for setting the draft regional targets involved incorporating the findings of a taskforce comprising officials from the Ministry for the Environment (MfE) and the Ministry for Primary Industries (MPI) and representative staff from regional councils and territorial authorities. The taskforce prepared a report[1] that presented regional figures as to current swimmability and projected improvements by 2030. They were generated by computer modelling. Throughout this process, Council staff have strongly stated their concerns relating to the assumptions and limitations of the modelling work in relation to setting meaningful targets. In particular, Council officers raised concerns (which were reported to the Committee at its meetings on 30 January and 13 March 2018) with the taskforce about the national targets and that:

- the methods of assessing and reporting *E.coli* take no account of seasonal effects (e.g. weather and river flow conditions) that influence when people choose to safely swim, or whether there is any public access to the rivers and lakes that are part of the target;
- there is a risk that prioritising actions to achieve the national targets for swimming will be at the expense of other freshwater values (such as agricultural use or mahinga kai) and will affect the setting of freshwater objectives and limits for those values; and
- the target's focus on *E.coli* as a measure of suitability for swimming will be at the expense of managing other contaminants that might be of a higher priority or of concern to some regions, e.g. nitrogen, phosphorus and sediment.

The Council has several freshwater quality monitoring programmes, which form part of its wider state of the environment monitoring programme. Statistically robust trend analysis show improvements in freshwater quality continue to be made over time. Of particular note, the Council's recreational water quality monitoring (last undertaken 2015/2016) showed that 'swimmability' in Taranaki's rivers is generally already good to very good where and when it matters – at 16 recognised community swimming spots during summer. In the 2016/2017 summer period, 86% of all samples met the national bathing guideline. Of the 14% of samples that exceeded the guideline, 10% was attributable to bird life at two New Plymouth urban sites. Incidentally, DNA testing has revealed that in Taranaki, the worst pollution of our favourite swimming spots is caused by seagulls, ducks, and pukeko.

Notwithstanding the concerns above, as a matter of law, Council complied with NPS-FM requirements to adopt and publish draft targets for swimmability by the due date of 31 March 2018. Following the Policy and Planning Committee meeting of 13 March 2018, Members agreed to adopt draft regional targets (based upon the taskforce's modelling projections). The draft targets were made available to the public on its website and Council placed a public notice in the newspaper seeking public comment and feedback. No feedback was received on the draft targets.

Pursuant to Policy A6 Council is now required to make the final targets publically available by 31 December 2018.

Final targets for swimmability

The attached report is a revised version of the March report. No comments were received on the public and no further work has been done by the taskforce. Consequently, officers recommend adopting the draft targets as the Council's final targets for swimmability.

[1] *From 'Regional information for setting draft targets for swimmable lakes and rivers' (March 2018). A report compiled by a joint taskforce of central and local government representatives.*

After a brief introduction the report sets out the regional context and focus for swimmability targets. It emphasises enhanced water quality as being one of the most important issues for the Council and a focus for the Council's work programmes since its formation almost 30 years ago. The report summarises the Council's regulatory response via the *Fresh Water Plan for Taranaki*; its move to have farm dairy effluent discharges diverted to land rather than to water; and its major non-regulatory programme, the riparian management programme, which has widespread farmer buy-in and community support.

The report goes on to outline the regional context, including that the taskforce has advised the Council that currently overall swimmability for the Taranaki region is estimated as 39% of rivers and 97% of lakes. This section of the report also provides a brief overview of our state of the environment monitoring and reporting (which shows good to excellent water quality across most parameters measured, including *E. coli* measures at recognised community swimming spots during the summer bathing season) and improving trends in water quality over time.

Regional targets are then identified in the report. Based on the Taskforce's modelling, 67.4% of rivers in Taranaki are projected to be 'swimmable' by 2030 (below the national target of 80% of rivers swimmable). Conversely, 97% of lakes in Taranaki are projected to be 'swimmable' by 2030 (above the national target of 80%).

Notwithstanding the Taskforce's modelling projections on improvements in swimmability, the report restates Council concerns on the assumptions adopted and limitations inherent in the modelling exercise. The report notes that the likely level of compliance on completion of committed work programmes is likely to be in the order of 50-55% rivers swimmable, rather than the 67.4% estimate.

In terms of context, the national modelling for current state and future attainment shows a very strong west-east divide (which emphasises the point about the effects of climate on swimmability as defined in the NPS-FM), and a North Island-South Island divide (reflecting land uses). The projected improvement in swimmability for Taranaki is greater than for any other region in New Zealand (noting however that most of the regions in the South Island already have high attainment). The modelled attainment for Taranaki would place the region even further above other North Island dairying regions (Northland, Waikato, and Manawatu-Wanganui) and Auckland, and on a par with Southland. Only two of New Zealand's 16 regions are projected to move from non-attainment to attainment by 2030.

In the Government's recent announcements on *Essential Freshwater*, amendments to the NPS-FM have been signaled. It is unclear at this stage what if any impacts this will have on current swimmability provisions in the NPS-FM.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's

adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Attachment

Document 2136634: Regional targets for swimmable rivers and lakes for the Taranaki.

Regional targets for swimmable rivers and lakes for the Taranaki region

Taranaki Regional Council

Working with people | caring for Taranaki

Regional targets for swimmable rivers and lakes for the Taranaki region

National Policy Statement for Freshwater Management

20 November 2018

Document number: 2136634

Contents

List of tables

List of Figures

Introduction

Purpose

The purpose of this report entitled *Regional targets for swimmable rivers and lakes for the Taranaki region* is to set regional targets to improve the quality of fresh water in specified rivers and lakes and contribute to achieving the national target to increase proportions of specified rivers and lakes that are suitable for primary contact to at least 80% by 2030, and 90% no later than 2040.

This report gives effect to Policy A6(b) requirements of the *National Policy Statement for Freshwater Management* (NPS-FM).

Background

Taranaki has over 500 named rivers and streams, many of which contain spots or places valued for swimming. However, water quality in the region, as in other parts of New Zealand, varies dramatically with the weather. Taranaki's high rainfall means that even our cleanest waterways may exceed recognised guidelines of contaminants during cold and wet weather, and indeed even during flood flows in summer. The overland flow of rainwater across agricultural land and urban landscapes may easily pick up high levels of the bacteria that are then deposited into our nearest waterways.

The NPS-FM directs all regional councils (including unitary authorities) to set regional targets to improve the quality of fresh water so rivers and lakes are suitable for primary contact more often. Furthermore, under Policy A6(b) of the NPS-FM the Taranaki Regional Council (the Council) is required to develop regional targets and make these targets available to the public by 31 December 2018. This report has been prepared to meet these requirements.[1]

"Primary contact" includes swimming, and means people's contact with fresh water that involves immersion in the water. Being suitable for primary contact more often includes improvements in water quality from one nationally defined state to another (for example, orange to yellow, yellow to green, or green to blue as set out in the NPS-FM). The NPS-FM does not specify a 'bottom line', or minimum standard, for 'swimmability', but the government's targets are based on only the top 3 (yellow, green, blue) of the 5 categories being acceptable.

A joint taskforce of central and local government representatives sought to use the best information available to model on a regional and national scale:

- The improvements that will be made to water quality in rivers and lakes under programmes that are planned or underway, on a region-by-region basis;
- When the anticipated water quality improvements will be achieved; and
- The likely costs of all interventions, and where these costs will fall.

The assumptions and limitations of the modelling approaches that have been taken are raised in the Taskforce's report[2], e.g:

"*While there are areas where the science can be improved, for example, the ability to model all four criteria for E. coli results in rivers, it is unlikely these matters will be resolved over the next six months. The Taskforce felt that these uncertainties should not prevent councils making the best estimations possible with the tools and knowledge available to meet the deadline set in the NPS-FM…. changes between scenarios of the proportion of rivers in a given swimming grade can be considered more reliable than estimates of the absolute values of load…*"

[1] *Of note, draft swimmability targets were published and made available to the public by 31 March 2018.*

[2] *Ministry for the Environment (March 2018). Regional information for setting draft targets for swimmable lakes and rivers, ME1349.*

The report[3] on these theoretical improvements and costs, presented region-by-region was published in a finalised form by the Ministry for the Environment in March 2018.

The NPS-FM has set a national target of swimmability that by 2030, 80% of all specified rivers and lakes shall be swimmable and by 2040, 90% of specified rivers and lakes shall be swimmable.

The NPS-FM defines "*specified rivers and lakes*" as meaning rivers that are fourth order or above and lakes with a perimeter of 1.5 kilometres or more. Each regional council is required to develop targets to demonstrate a regional contribution towards the national target. The NPS-FM further defines 'swimmable' rivers and lakes based on the bacterial concentrations of *Escherichia coli* (*E. coli*) and cyanobacteria as outlined in Table 2 below.

Table 1: *Swimmable criteria for rivers and lakes*

Bacteria	Concentration	Rivers or lakes affected	Swimmable
E. coli	In regular sampling of E. coli, for at least half the time, the estimated risk* is less than 1 in 1000 (0.1% risk).	Rivers and lakes	Yes
Cyanobacteria	Less than or equal to 1.8 cubic millimetres per litre of toxic cyanobacteria OR less than or equal to 10 cubic millimetres per litre of all cyanobacteria.	Lakes	Yes

* The estimated risk refers to the predicated risk of Campylobacter infection to swimmers. Actual risk will generally be less if a person does not swim during times when a river is obviously turbulent or discoloured, e.g. during and after rainfall.

[3] *Ministry for the Environment (March 2018). Regional information for setting draft targets for swimmable lakes and rivers, ME1349.*

Regional context

The joint Taskforce has advised the Council that currently, overall swimmability for the Taranaki region is estimated (as at 2017) as:

- **39% of rivers**, and
- **97% of lakes**.

This figure has been generated by the computer modelling undertaken on behalf of the Taskforce. The Council was not involved in this modelling.

From the Council's perspective, the regional priorities for the Taranaki region are to focus on interventions that will improve freshwater quality in the region. Good freshwater quality is one of the most important issues for the Council and has been since it was formed almost 30 years ago. The Council's policy position is clear: it is to maintain and enhance water quality in Taranaki's rivers and lakes.

Management interventions (whether regulatory or non-regulatory) over the last 30 years have become increasingly stringent, as each step of progress is made and as expectations rise. The Council has pursued this policy vigorously over the decades in the face of increasing demands and pressures being placed on our freshwater resources, even though indicators of stream health are showing significant gains in the Taranaki region.[4]

The Council has an operative *Regional Fresh Water Plan for Taranaki* which is currently undergoing review. The Plan has a full suite of regulations to ensure discharges to water achieve the Plan's objectives. The Council has recently released its *Requirements for good farm management practices in Taranaki*, which are based on existing policy but which represent a tightening of the requirements to meet modern standards and changing community expectations. One of the initiatives being pursued by the Council is to have discharges of farm dairy effluent to water gradually phased out where it is practicable to do so, and replaced by discharge to land. This will be done as resource consents come up for renewal. The policy will see further improvements to water quality in Taranaki (including bacteriological quality) and will also be of benefit to farmers in the long run. Further extension and refinement of these requirements through the plan review process will ensure all sectors impacting on water quality adopt good management practices in relation to freshwater resources.

One of the major non-regulatory programmes being run by the Council is the Taranaki Riparian Management Programme. This is a wholly voluntary programme designed to address the effects on water quality of our agricultural sector, primarily dairy farming which is focused on the ring plain and coastal terraces. This programme has been highly successful since it was first introduced in the early 1990s and has transformed the Taranaki landscape. It exceeds national regulatory requirements on a number of fronts, in both spatial scope and in the degree of stream-bank management interventions along each stretch.

Under the Taranaki Riparian Management Programme, 99.5% of dairy farms have a riparian plan in place. The programme covers 15,409 kilometres of stream bank. As at 30 June 2018, 86% of plan holders have fenced their streams and over 72% have their streamside margins in suitable vegetative cover. Over 5.1 million plants have been supplied to plan holders.

Completion of fencing and planting is set for around the end of the decade, when it is intended that a compliance regime will be put in place via the Fresh Water Plan review process to ensure completion of the programme and to ensure its security into the future. It should be noted that the success of the Taranaki Riparian Management Programme has come about as a result of a substantial amount of collaborative work with stakeholders and the wider regional community to determine an appropriate and achievable completion and compliance regime suited to Taranaki conditions. The benefits for water quality of riparian management are universally recognised.

[4] *Ministry for the Environment (March 2018). Regional information for setting draft targets for swimmable lakes and rivers, ME1349.*

The Council released a draft *Freshwater and Land Management Plan for Taranaki* for pre-notification for comment in 2015. The draft plan builds on the Council's extensive experience in freshwater management and puts in place a management regime that takes account of national policy direction as expressed in the NPS-FM. It would establish freshwater management units and would set objectives and maximum in-stream concentrations for key water quality attributes.

The draft plan also contains rules requiring stock exclusion and riparian planting on land used for intensive pastoral farming, effluent discharge to land, wetland protection and forestry setback distances from waterways. It also contains schedules of outstanding freshwater bodies in the region and regionally significant freshwater and wetland species.

Following comments received on the draft Plan, the Council is now carrying out further consultation and investigations, with the intention of notifying a proposed plan before 2020 which will include provisions that will look to give effect to recent (and proposed) amendments to national policy in the NPS-FM.

The Council has a comprehensive state of the environment monitoring programme which has been running since the mid-1990s. There are several freshwater quality monitoring programmes which form part of the region-wide state of the environment monitoring programme. The results from the programme are regularly reported to the Council. Every few years a more accessible public document written with a broader audience in mind, is produced and given wide public and media attention.

The results of all of our state of the environment monitoring show good to excellent water quality across most parameters measured compared with national guidelines, and generally positive trends. Statistically robust trend analysis show improvements continue to be made over time. In Taranaki, 'swimmability' in our rivers is generally already good to very good where and when it matters – i.e. at recognised community swimming spots during summer (noting that the NPS-FM requires and measures swimmability all-year-round, under all flows and all river conditions).

These results reflect a serious level of financial commitment and prioritised engagement by resource users and the regional community at large.

Regional targets

Taskforce modelling projections

The primary contact regional target for the Taranaki region based on the Taskforce modelling of Council programmes and interventions already underway are for:

- **67.4%** of rivers that are fourth order or larger to be in the blue, green or yellow category in terms of *E.coli* by 2030 (see Figure 1); and
- **97%** of lakes with a perimeter of 1.5 kilometres or more to be in the blue, green or yellow category in terms of *E.coli* by 2030.

The change in the percentage of swimmable rivers in Taranaki as currently modelled by Ministry for the Environment (MfE) is the greatest change that would occur in any region in New Zealand (an improvement of over 28% in absolute terms, to 67.4% from the 39% of rivers swimmable as currently modelled). In particular, the percentage of rivers in Taranaki currently assessed as rarely or never swimmable (16.8%) is modelled to reduce to just 2.5%, a relative reduction of 85%.

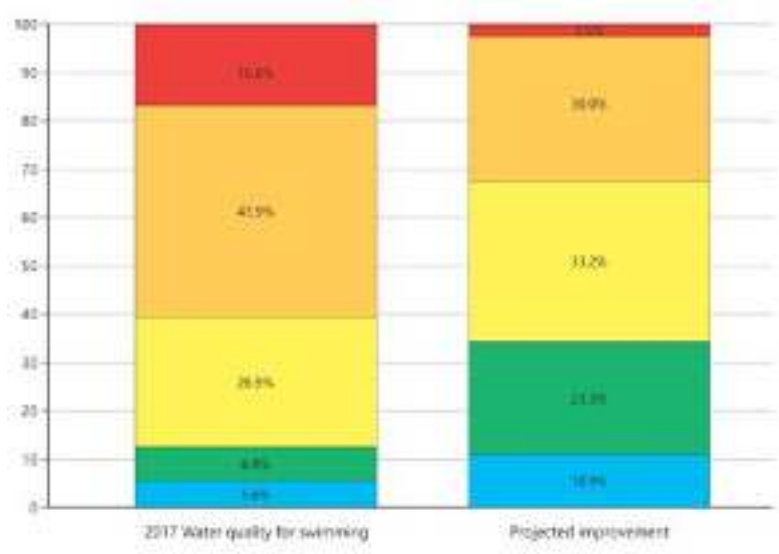


Figure 1: Projected improvement in water quality for swimming for Taranaki rivers by 2030

Taranaki Regional Council projections

The primary contact regional target for the Taranaki region based on the Council's own assessments of the swimmability benefits from programmes already underway are more conservative (refer to discussion overleaf) and are for:

- **50%-55%** of rivers that are fourth order or larger to be in the blue, green or yellow category in terms of *E.coli* by 2030
- **97%** of lakes with a perimeter of 1.5 kilometres or more to be in the blue, green or yellow category in terms of *E.coli* by 2030.

Discussion of assumptions and limitations of modelling and the setting of targets

The Council has expressed concerns that the Taskforce's report has critical flaws in methodology and quality. In particular, that the modelling that has been undertaken has not accurately represented and assessed the application of the NPS-FM 95th%ile *E coli* criterion to above-median flow conditions, that the modelled costs of riparian planting in the Taranaki region underestimate the investment that Taranaki farmers are making in riparian management, that the reductions in annual *E. coli* loadings from diverting farm dairy effluent from rivers are over-stated, and that the costs of completing farm dairy effluent conversion to land irrigation are under-stated. MfE had indicated that the economic model for costs may be re-run prior to councils setting their final regional targets later in 2018 but at the time of writing this has not occurred.

The Council's view is that the MfE assumptions and inputs to the modelling are overly optimistic, especially around the anticipated water quality benefits of spreading dairy shed effluent on land instead of into treatment ponds which discharge to waterways. For example, the Council's data show that *E. coli* levels in rivers are actually higher in winter (when effluent ponds are not discharging fresh effluent with high *E. coli* counts) than under identical flow and weather conditions in summer (when ponds are discharging for some periods on most days). Two of the seven mid to low catchment monitoring sites are in catchments with minimal or no remaining pond discharges to water (Maketawa and Mangaehu), yet both these sites drop into the lowest (worst) category of swimmability grades under mid to higher flow conditions, whether in winter or summer. The Maketawa Stream carries a considerably higher bacterial concentration in winter under low flow conditions than it does in summer under the same conditions; under winter high flow conditions it drops to the lowest grade. Likewise, the Mangaehu River drops from the best category during winter low flow conditions, to the worst category under winter high flow conditions.

Council staff assessments of swimmability as determined by the NPS-FW, put the likely level of compliance on completion of proposed interventions at **50-55%** of rivers rather than **67%**. The Council believes that the 50-55% figure is a more realistic outcome to be expected, and is an appropriate target to be pursued. However, it should be noted that even with MfE's overly optimistic analysis, we will fall well short of what is required as a national average under the NPS-FM. This is despite the fact that through the Taranaki Riparian Management Programme the region is investing and doing far more than the NPS-FM requires and doing more than many other regions in New Zealand.

Since 1995, the percentage of Taranaki's ring plain streams fenced has risen from 50% to 85%, and the percentage planted has risen from 42% to above 70%. Notwithstanding that while NIWA confirms a definite reduction in *E coli* levels, the rate of compliance with NPS-FM targets has not changed over the same period[5] due at least in part to the reality that peak concentrations of *E. coli* at peak flows are not reduced by such riparian interventions. Taking the above into account, regional gains in swimmability of some 20-25% in relative terms, from a current 39% (as modelled) to about 50%, is considered more credible than a relative gain of about 75% as is projected

Taking the national perspective, the Taskforce report makes it clear that councils are spending far more than had been proposed as necessary by MfE when the swimmability provisions of the NPS-FM were promulgated, but with far less improvement in swimmability than MfE had proposed would be the case. The report suggests that nationally, swimmability will increase from the current 68.6% of rivers, to only 76.5% - delivering barely one-third of the increase needed to meet the national target.

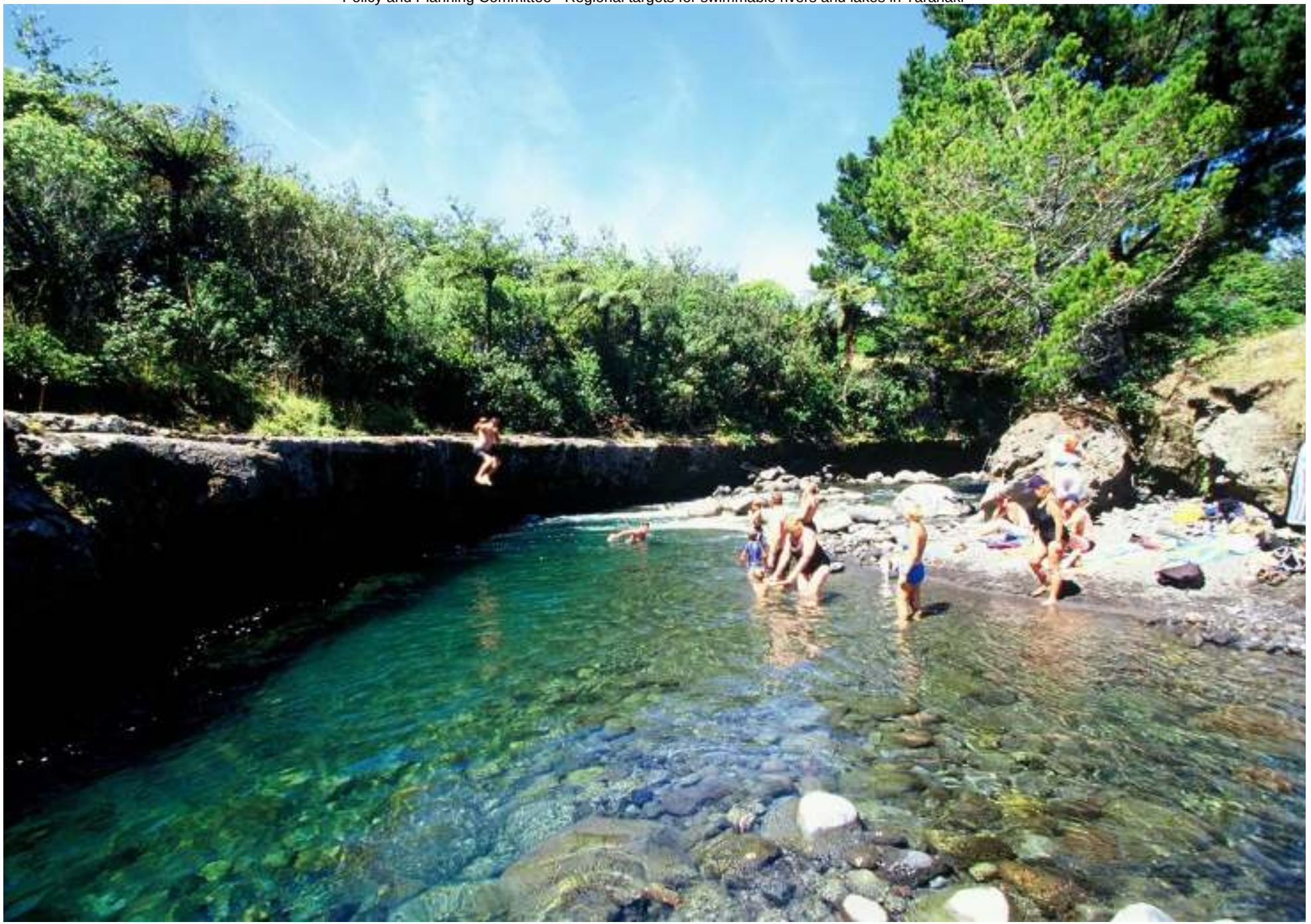
The Council has commented on the modelling assumptions and parameters used by MfE which raise issues of concern with the value and applicability of the modelling across a number of inputs and assumptions. For example, the input data reflected baseline rather than peak flow conditions, but from observation it is the latter that give rise to the highest concentrations of *E. coli*, the indicator bacteria that establishes 'swimmability'. Similarly, MfE's projection indicate Taranaki has already exceeded national targets for swimmability in lakes (and therefore no problem). However, Council monitoring shows that algal blooms can regularly occur at Lake Rotokare

The Council has received a revised report from the Taskforce charged with gathering regional information for setting draft targets for swimmable rivers and lakes but that report has not addressed the issues raised by the Council (and summarised in this

[5] NIWA *Analysis of stream responses to riparian management on the Taranaki ring plain*, March 2018, prepared for Taranaki Regional Council.

discussion). The Council believes a fundamental review of the modelling work is required.

The Council has commissioned its own studies, utilising actual water quality and riparian management monitoring data from the last two decades. The report from NIWA was presented to the Council on 24 April 2018. It found a strong correlation between the implementation of riparian management and reductions in *E coli* levels in the waterways of Taranaki, but on the other hand it found a lack of correlation between increasing riparian interventions and any evidence of a change in attainment of the NPS-FM swimmability criteria.



Summary

Table 2 below shows the proportion of Taranaki rivers and lakes that were classified as swimmable in 2017, along with the projected Taranaki attainment to be met by 2030 (based upon the Taskforce modelling). As noted, at 67%, Taranaki is not going to achieve the national target of 80% for rivers set by the Government. Although, at 97%, Taranaki has already exceeded the national target of 80% set for lakes.

The Council is committed to notifying a proposed Freshwater and Land Management Plan for Taranaki before 2020. The Council intends that the proposed plan will fully implement the NPS-FM. The NPS-FM however, provides for regional councils to fully implement the policy by 31 December 2025, or by 31 December 2030 if certain circumstances apply.

In the meantime the Council will continue to take positive action towards improving water quality for primary contact through the riparian management programme, the diversion of farm dairy effluent discharges to land and the adoption of good management practices to improve water quality across all sectors. The Council will continue to monitor water quality and report trends to the community. The Council will also continue to improve the suitability of fresh water for primary contact through attention to other contaminants (not just *E. coli*), for example water clarity and periphyton growths, and monitor and report flow rates and levels.

Table 2: *Proposed and current proportion of Taranaki rivers and lakes that are swimmable*

Year	Rivers	Lakes
2017 (current)	39%	97%
2030 (regional target - projected)	67%	97%
2030 (national target)	*80%*	*80%*

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: Regional freshwater recreational bathing water quality report for 2017-2018

Approved by: G K Bedford, Director-Environment Quality

B G Chamberlain, Chief Executive

Document: 2153904

Purpose

The purpose of this memorandum is to update the Committee on the results of the 'state of the environment' programme that monitors freshwater contact recreational water quality, for the 2017-2018 bathing season (*Freshwater contact recreational water quality at selected Taranaki sites State of the Environment Monitoring Report 2017-2018, Technical Report 2018-01*, November 2018). The full report is available upon request, and will be published on the Council's website following this meeting. This memorandum summarises the report's data and results, and the Executive Summary and recommendations from the report are attached as an appendix.

A presentation on the report will be made at the meeting.

Executive summary

The Council's *Regional Freshwater Plan for Taranaki* recognises point source and diffuse source discharges of contaminants to surface freshwater as a significant resource management issue. The Council seeks to manage the quality and effects of such discharges through consents (for point sources) and programmes such as riparian exclusion and plantings (diffuse sources). Progressive improvement in in-stream water quality is achieved as consent conditions are made more rigorous, and as land managers undertake new fencing and planting.

The Council's State of the Environment monitoring programmes includes a programme to monitor the state and any changes in the state of the recreational quality of the region's lakes and rivers that are used by the community for recreation.

The latest report (for summer 2017-2018) is available as a separate item, and the Executive Summary of the report is attached to this memorandum as an appendix, for Members' information. Sixteen sites were monitored for bacteriological quality. Nine of these sites are also monitored for benthic cyanobacteria ('slime') as well. Two lake sites were monitored for both bacteriological quality and planktonic cyanobacteria (floating algal 'blooms')- Lake

Opunake, and Lake Ratapiko, while Lake Rotokare was monitored solely for planktonic cyanobacteria. In the year under review, there were further investigations conducted at designated bathing sites into particular sources of bacterial contamination at several sites, involving environmental forensic DNA analysis.

Sampling frequency was increased in 2017-2018 to weekly at the region's most popular sites, including within the Christmas-New Year holiday period, with the additional sampling being undertaken regardless of weather. There was little difference in the two datasets ('SEM' samples versus all samples).

Bacterial levels were somewhat higher than usual in the season under review. This is put down to a wetter summer, especially January-March so that, for example, dairy effluent ponds discharged for longer and more frequently than usual, and cloudy conditions would have reduced the degree of solar inactivation of bacteria. There would have been increased diffuse runoff. The percentage of samples from equivalent sites within the programme that fell into the 'Action' category increased in the year under review, from 14.4% (2014-2015), 15.9% (2015-2016) and 13.0% (2016-2017), to 20.7%. There were 43 samples altogether in the 'Action' category (29 for equivalent sites in the previous season). Over half of the 'Action' level samples arose at just two sites- lower Waiwhakaiho and lower Te Henui. These exceedances were due to resident wild fowl populations in the vicinity, and there is increasing bacterial contamination at these two sites. The Waiwhakaiho River fell from 85% compliant at Merrilands Domain, in upper urban New Plymouth, to 23% compliant adjacent to Lake Rotomanu, just above its mouth. At most of the other Taranaki freshwater contact recreational sites, it is almost always isolated events rather than general seasonal quality that give rise to exceedances of guidelines.

A notable increase in frequency of exceedance of the MfE 'Action' guideline occurred at three monitoring sites (Patea River at King Edward Park, Stratford, Waingongoro River at Eltham camp, and Timaru Stream at mouth). Comprehensive investigations through inspection of potential faecal sources upstream found all farm waste disposal systems to be operated in compliance with resource consents and no influences in riparian areas. Water quality surveys, including microbial DNA analysis, in each case, found no human contamination, and varying amounts of both ruminant (mainly in upper Patea and Waingongoro) and avian (mainly in Timaru) contributions.

Five of the 16 sites remained below the Ministry for the Environment's 'Action' level at all times during the season, two fewer than in 2015-2017 seasons. Another 3 sites had only one non-compliance during the season, while a further three sites had 2. Twelve of the 16 sites had at least 75% of their samples below the 'Action' grade. In terms of guidelines attainment, the sites may be ranked in the following order for the 2017-2018 season:

1= Patea River at boat ramp, Patea
1= Lake Ratapiko
3= Lake Rotomanu
3= Urenui River at estuary
5 Manganui River at Everett Park.

The Council's *2012-2022 Long-Term Plan (LTP)* has as a target for microbiological quality in inland waters, the *maintenance or increase in the number of sites compliant with the 2003 Ministry of Health contact recreational guidelines* (with 2003-2004 as the baseline year). Out of the 11 inland bathing sites that have been monitored in both seasons, 6 were fully compliant in 2003-2004, but only 2 in 2017-2018. There has been a very large increase in non-compliant samples at the mouth of the Te Henui Stream (from 4 in 2003-2004 to 12 in 2017-2018, out of

13 samples), and smaller but still significant increases for the Patea and mid Waingongoro Rivers and the Timaru Stream. The increase in the latter 3 are highly anomalous results.

Cyanobacteria blooms were recorded at Lake Rotomanu on most fortnightly surveys until March 2018, and at Lake Rotokare in November and December 2017. Benthic cyanobacteria were found occasionally in most of the nine rivers and streams monitored, but at a lower frequency than in previous years. This latter was probably due to scouring of stream beds by freshes. Warning signs were posted during these periods, to avoid potential risk to children or dogs (who seem drawn to the odour of exposed mats but are then adversely affected by toxins if present within the cyanobacteria).

While the regional riparian programme and diversion of pond effluent will have significant benefits for reducing bacteriological contamination of waterways in the long term, through reducing faecal deposition directly into waterways or on stream banks and through increasing the interception and attenuation of runoff, the significant variations in results in the last decade point also to more immediate meteorological and hydrological as well as longer term land management and farming practice influences showing through.

Over the long term, there are clear indications of deteriorations in the Te Henui Stream and the lower Waiwhakaiho River (in both cases waterfowl are the source of microbial pollution).

Members may recall the release in 2013 of a report by the Ministry for the Environment, ('Suitability for swimming' July 2013 INFO 690), which focused solely on the grading system used by MfE and the Ministry of Health to indicate the presence of risk factors at swimming spots. The Council has repeatedly expressed its disappointment that this system, which does not take into account the state of water as revealed by day to day monitoring, is given so much emphasis, as is its mis-interpretation (e.g. ' 60% of NZ's waters unsafe to swim in') by the media. However, it is also acknowledged that in this publication at least, MfE noted that the suitability for recreation criteria:

- do not represent an accurate picture of water quality in the catchment;
- reflect a precautionary approach to managing health risk;
- are not designed to represent health risks on a particular day;
- tend to reflect the poorest water quality measured at a site rather than the average water quality;
- a site may be graded as poor but still be suitable for swimming much of the time; and
- do not replace the site-specific information available on council websites.[1]

The Council was previously required to give effect to the *National Policy Statement for Freshwater Management 2014* (NPS-FW) by implementing measures '*to safeguard…. (b) the health of people and communities,* ***at least as affected by secondary contact with fresh water****; in sustainably managing the use and development of land, and of discharges of contaminants'*. This was colloquially described as ensuring at least a 'wadeability' quality in all water bodies. In 2017, the Government amended the recreational criteria to create four distinct 'swimmability' criteria. All major water bodies (regardless of whether they include recognised freshwater recreational sites) are regarded as having to meet all four 'swimmable' criteria simultaneously. All four criteria have to be applied to data regularly collected year round, regardless of flow. While the Council's summer monitoring programme does not provide data collected according to this protocol (the separate year-round water quality programme

[1] ***Suitability for swimming: Indicator update July 2013: INFO 690***, Ministry for the Environment

provides data that is assessed by the Council to determine regional 'swimmability'), the report provides a comparable analysis for interest. Of the 17 recognised freshwater recreational sites in Taranaki, when considering samples collected over the last five years under conditions suitable for recreation, 7 sites satisfy all criteria, and another 2 fail only one of the four criteria.

In terms of promoting a 'one-stop shop' in public awareness of available guidance on water quality and suitability for recreational use, the Council now promotes the regional councils' LAWA website as the preferred source of national data on water quality and other environmental metrics. Data from the Council is uploaded automatically to the LAWA website as soon as it is available.

Of note, the LAWA website is about to publish an 'Overall Recreational Risk' assessment of freshwater bathing sites for all of New Zealand. The criterion applied differ from the 2003 guideline classification system and the NOF year-round system. The LAWA classification considers all data from the last 3 years, with regard to the 95th%ile result- that is, at least 95% of all results must lie below either the 'Alert' threshold ('G*enerally suitable for swimming*') or the 'Action' threshold ('*Caution advised; avoid swimming if discoloured or for 2-3 days after heavy rain*'). Three of Taranaki's 16 sites are in the top category for quality, and another 4 in the cautionary category.

In terms of responsibility for advising the public on public health aspects of water quality, during 2016 the Council discussed with the district councils and the Medical Officer of Health the messaging that each agency should be providing to the public. As a result, it was agreed that the TRC website would direct all web enquiries around 'Can I swim here?' to the websites of the Taranaki District Health Board (TDHB) and district councils, where public health-based interpretation of water quality data would be provided and any advisory notification posted. During 2017-2018, there were 854 page views of the data on the Council's individual freshwater bathing sites, well up on the previous year's 316. The figures do not include anyone viewing the environmental data map only on the Council's home page, or anyone viewing the Council's monitoring data on the LAWA website. The TRC website's individual page for Lake Rotomanu was the most frequently visited, accounting for 13% of total page views in this category. Other frequently visited pages were those showing data from the Patea River at Stratford, and the Waiwhakaiho River below Lake Rotomanu.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum noting the preparation of the report *Freshwater Contact Recreational Water Quality at selected Taranaki sites SEM Monitoring Report 2017-2018, Technical Report 2018-01*

2. adopts the specific recommendations presented in Technical Report 2018-01.

Background

Section 35 of the Resource Management Act requires local authorities to undertake monitoring of the region's environment, including land, soil, air, and fresh and marine water quality. Monitoring is undertaken to identify pressures upon the regional resources, their state, changes in their state (i.e. trends), and the effectiveness of the policies and actions undertaken to maintain and enhance the environment.

The Regional Fresh Water Plan for Taranaki contains objectives to manage the state of the region's surface freshwater. Objective 6.2.1 requires the Council and region *'to maintain and enhance the quality of the surface water resources of Taranaki by avoiding, remedying or mitigating the adverse effects of contaminants discharged to land and water from point sources'*, while Objective 6.3.1 is an equivalent objective for diffuse sources of contaminants.

In Section 10.3 of the Plan, the Council commits to continued monitoring, research and investigations related to fresh water quality, to provide information on the state of fresh water in the region and the effectiveness of the Plan.

Section 4 of the RFWP recognises that iwi seek the recognition of the values of water and protection of the mana, mauri, and wairua of waterways against contamination; maintenance of the quality of water for its ability to provide mahinga kai; and respect for wāhi tapu and other areas or resources that have special significance.

The Council's 2012-2022 LTP has, under the 'Levels of service' specified for resource management, a commitment to '*maintain and enhance overall water quality in our rivers and lakes, groundwater and coastal waters*'. The measure for this activity is: *'parameters that characterise the physical, bacteriological, biological and chemical quality of surface water*'.

The Taranaki Regional Council initiated freshwater contact recreational water quality monitoring at a number of designated sites as part of Council's state of the environment monitoring (SEM) in 1996. The on-going programme is designed to annually monitor the bacteriological quality of lakes, rivers and streams at popular contact recreational sites. This work is undertaken principally for state of the environment purposes, measuring the current condition of the sites and looking for any trends as indicators of pressures, but the results are also compared with various contact recreational guidelines as a means of providing perspective on the significance of the results.
Monitoring is scheduled to be carried out from early November to the end of March (ie the bathing season), but can extend to April, depending on weather conditions.

Freshwater contact recreational water quality monitoring measures the number of bacteria in the sampled water. The designated indicator bacterium is *E.coli*. Sampling is undertaken according to documented Council procedures, which includes avoidance of elevated river flow conditions.

The proposed programme for each year is workshopped with staff of the three district councils and the TDHB - Health Protection Unit prior to the start of each season, results are reported as soon as available on the Council's website throughout the season, and a full report on all results and findings presented to and discussed with each of the other agencies at the completion of the season.

Discussion

Programme description

This report examines the bacteriological quality of 16 popular freshwater recreational locations in the region for the 2076-2018 bathing season. It was the twenty-second such annual survey. Some of the sites have been added during the programme's lifetime, in response to concerns over cyanobacteria and as changes in access have meant new sites have become more popular. Sampling was completed within the period of early November to mid April, with an increased frequency at popular sites from mid December to the end of March, in recognition of greater usage during this period especially during public holidays.

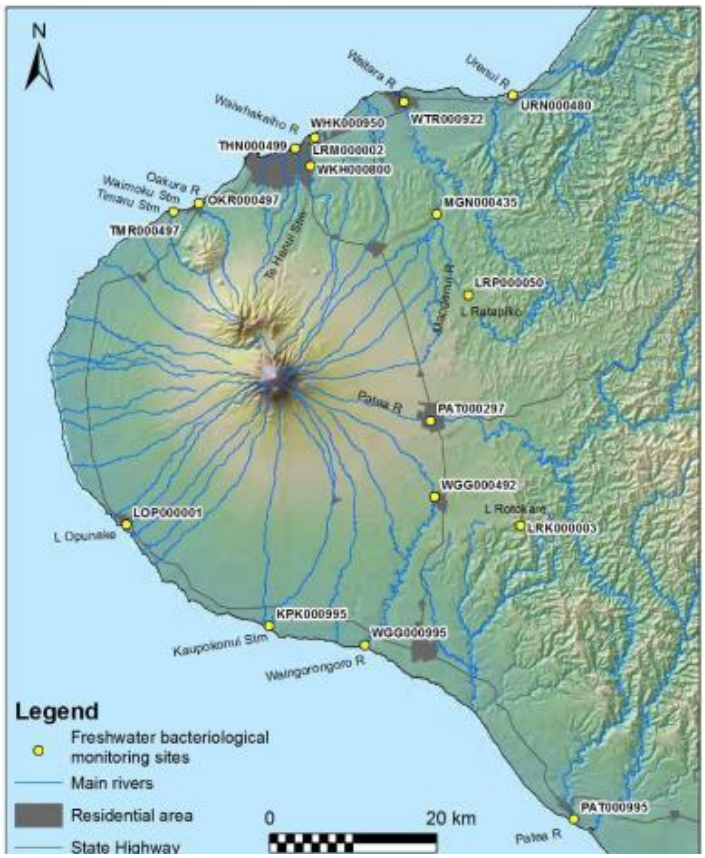


Figure 1 Location of freshwater contact recreation survey sites 2012-2013

Sample test results were compared with the Ministry for the Environment's (MfE) *Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas* (2003). These guidelines are developed to apply to high-contact uses of water used intensively for recreational purposes, but are applied by the Council to each of the freshwater recreational sites without differentiation as to risk e.g. sites where there is paddling or kayaking or children playing in or near the water are treated the same as sites where there is repeated full immersion of swimmers' heads through activities such as diving or body-surfing rapids. The guidelines note a potential health hazard '*when the water is used for recreational activities such as swimming and other high-contact water sports. In these activities there is a reasonable risk that water will be swallowed, inhaled (Harrington et al 1993), or come in contact with ears, nasal passages, mucous membranes or cuts in the skin, allowing pathogens to enter the body*'.

The sites have also been graded for recreational suitability according to MfE, 2003 guidelines, based upon the immediately preceding five seasons of monitoring data (where such data existed). In addition, the Council assesses sites using the Ministry's 'Suitability for recreation' (SFRG) criteria that base grades on surrounding land use. In doing so, it emerges that although most of the sites' SFRGs suggest possible high risks associated with contact recreational usage, those SFRG gradings have been dictated by the agricultural nature of all catchments (meaning the sites are inevitably rated poorly regardless of proven quality). SFRG gradings for the 5 years to 2018 are given below.

For the last two years, the reports also referenced the *National Policy Statement for Freshwater Management 2014 (*NPS-FW), which required that the Council, in giving effect to the NPS, is '*to safeguard…. (b) the health of people and communities,* ***at least as affected by secondary***

contact with fresh water; *in sustainably managing the use and development of land, and of discharges of contaminants'* (Objective A1 for Water Quality, emphasis added). This wa colloquially described as setting a 'wadeability' standard for all water bodies. In 2017 the NOF was amended to include 4 criteria in respect of primary recreation, or 'swimmability'. The NOF requires that a site be categorised on the basis, not of the typical water quality, but from the worst results obtained at any time across any of the criteria throughout the record of monitoring. While the latest amendments do not include a specific 'national bottom line', the government has announced its intention that 90% of all 'swimmable' waters in New Zealand should be within the top 3 of the 5 new categories.

In general, these approaches indicate shortcomings in the grading systems that are based upon landuse/perceived impacts, or a precautionary interpretation of monitoring data other than actual exceedances, rather than basing gradings upon actual monitoring data measured throughout the bathing seasons. The results of the Council's contact recreational water quality programmes confirm that gradings do not reflect the recreational water quality experienced by recreational users and therefore it is suggested by Council officers that they are not appropriate to be used or relied upon to provide any statement about how safe water actually is for recreational purposes. They show only susceptibility, and predominantly reflect perceptions and suppositions about how some land uses might influence quality, as designated 'risk factors'. It is the view of the Council that when there is regular and systematic testing of the actual quality, those results reflect actual levels and are far more informative and meaningful to recreational water users. The Council emphasises the importance of results of systematic and timely on-going testing and reporting of actual contact recreational water quality.

It is noted that the Ministry for the Environment now acknowledges that the SFRG '*reflects a precautionary approach to managing public health risks and does not represent an accurate picture of water quality in the catchment. … The grades reflect a precautionary approach to managing health risk and are not designed to represent health risks on a particular day. They tend to reflect the poorest water quality measured at a site rather than the average water quality. A site may be graded as poor but still be suitable for swimming much of the time….The indicator does not replace the site-specific information available on council websites*.'[2]

In terms of access to a 'one-stop shop' for public awareness of available guidance on water quality and suitability for recreational use, the Council has in the last few years promoted the LAWA website as the preferred source of national data on water quality and other environmental metrics. The LAWA website has been set up and is supported by all regional councils across New Zealand, as a 'one stop shop' for the public to use to access environmental data. Data from the Council is uploaded automatically to the LAWA website as soon as it is available.

In terms of responsibility for advising the public on public health aspects of water quality, during 2016 the Council discussed with the district councils and the Medical Officer of Health the messaging that each agency should be providing to the public. As a result, it was agreed that the TRC website would direct all web enquiries around the question of 'can I swim here?' to the websites of the TDHB and district councils, where public health-based interpretation of water quality data would be provided and any advisory notification posted. During 2017-2018, there were 854 page views of the data on the Council's individual freshwater bathing sites, well up on the previous year's 316. The figures do not include anyone viewing the environmental data map only on the Council's home page, or anyone

[2] ***Suitability for swimming: Indicator update July 2013: INFO 690***, Ministry for the Environment

viewing the Council's monitoring data on the LAWA website. The TRC website's individual page for Lake Rotomanu was the most frequently visited, accounting for 13% of total pageviews in this category. Other frequently visited pages were those showing data from the Patea River at Stratford, and the Waiwhakaiho River below Lake Rotomanu.

Results

Microbiological quality
The Council's *2012-2022 Long-Term Plan (LTP)* has as a target for microbiological quality in inland waters, the *maintenance or increase in the number of sites compliant with the 2003 Ministry of Health contact recreational guidelines*. Out of the 11 inland bathing sites that have been monitored in both seasons, 6 were compliant in 2003-2004, and 2 in 2017-2018. In particular, the Patea River at Stratford, the Waingongoro River at Eltham (but not at Ohawe campsite) and the Timaru Stream showed anomalously high numbers of 'Action' samples in the season under review. These events were comprehensively investigated, including the use of forensic environmental DNA analysis, but without showing specific causes.

In general terms, *E. coli* bacteriological water quality was somewhat worse than usual, as marked by the overall number of samples entering the 'Alert' level and increases in seasonal median counts at several sites. While the total number of samples across all sites in an 'Alert' or Action' mode was the same as in the previous season, there were more 'Action' samples. Variability in quality between bathing seasons at each site may be related to a variety of reasons including hydrological conditions, stock access, wildlife presence, and dairy farm wastes disposal practices in particular.

In relation to the guidelines, two bathing sites (the mouth of the Te Henui Stream and the Waiwhakaiho River site adjacent to Lake Rotomanu), failed almost invariably to meet the *E. coli* 'Action' guideline suitable for contact recreation. It can be noted that the Waiwhakaiho River at Merrilands Domain i.e., below the agricultural catchment and within the urban area, consistently has very high quality (99% compliance in the last five years, although 85% in the season under review). The deterioration in recreational quality occurs within the city boundaries. Less than one-quarter of samples in the lower Waiwhakaiho River have been compliant in the last five years. That is, compliance within the river drops from close to 100% in its agricultural reaches to 23% within the urban reach.

Two sites maintained counts below the 'Alert' mode at all times throughout the season (compared with 3 last season), while 5 other sites maintained counts below the 'Action' mode at all times (7 last season). In terms of all samples at bathing sites during the monitoring season, there were 43 'Action' samples (29 in the previous season, or 42 including the Waimoku Stream). Twenty-two of these samples were at just two sites, as noted above.

Permanent health warning signage had been erected by the New Plymouth District Council (on the direction of Taranaki District Health Board) following past exceedances of 'Alert' levels (at Oakura [for past Waimoku Stream issues], Waitara township, the lower Waiwhakaiho River, and Te Henui Stream). Temporary signage was also required at various times at Rotomanu, Ratapiko and Opunake lakes, and at the upper Patea and upper Waingongoro river sites, during the season. Vandalism of the warning signs at Waitara has been an on-going issue.

In terms of median E coli bacterial numbers, the 5 bathing sites with the best water quality in 2017-2018 were:

1 Patea River at boatramp, Patea
2 Urenui River at estuary
3 Lake Ratapiko
4 Lake Rotomanu
5 Oakura River d/s of SH 45 bridge.

Based upon the number of samples that have been within the 'surveillance' mode (ie the category of highest quality of suitability for swimming) over the entire record since 1996, the following ranking of sites (in descending water quality) may be used to rank bathing sites in Taranaki:

1= Patea River at boat ramp, Patea
1= Urenui River at estuary
1= Lake Ratapiko
4 Waiwhakaiho River at Merrilands Domain
5= Oakura River at SH45
5= Waingongoro River at Ohawe Beach
5= Lake Rotomanu
8= Manganui River at Everett Park
8= Kaupokonui River at beach domain
10= Lake Opunake
10= Waitara River at town wharf, Waitara
10= Waingongoro River at Eltham Camp
13 Timaru Stream at Weld Road
14 Patea River at King Edward Park, Stratford
15 Waiwhakaiho River adjacent to Lake Rotomanu
16 Te Henui Stream at mouth, East End
17 Waimoku Stream, not a recognised bathing site).

All sites ranked tenth or better in this list have not exceeded the 'surveillance' guideline on an average of at least 75% of seasonal sampling occasions.

Temporal trends over the 1996-2018 period have been evaluated for the fifteen sites that have ten years or more data (and will continue to be assessed annually). Three sites, the Waiwhakaiho River adjacent to Lake Rotomanu, the Te Henui Stream, and the Eltham camp site on the Waingongoro River show statistically significant increasing trends, more so for this site within the Waiwhakaiho River. There are indications of increasing trends in median E. coli counts at another twelve bathing sites, and of reductions at two bathing sites (noting that indicative trends at several of these sites have been strongly influenced by the most recent results).

Microbiological quality: SFRG

The sites have also been re-graded for recreational suitability according to MfE, 2003 guidelines, based upon the immediately preceding five seasons of monitoring data (where such data exists). In addition, the Council assesses sites using the Ministry's 'Suitability for recreation' (SFRG) criteria that base grades on surrounding land use. In doing so, it emerges that although most of the sites' SFRGs suggest possible high risks associated with contact recreational usage, those SFRG gradings have been dictated by the agricultural nature of all catchments (meaning the sites are inevitably rated poorly regardless of proven quality).

The 5-year microbiological data to 2018 indicate 15 of 17 sites achieving compliance on 90% or more of occasions. Yet the only freshwater bathing site in Taranaki graded either 'good'

or 'very good' according to MfE criteria is Lake Rotokare. Further, the Urenui River estuary site, the Waiwhakaiho River at Merrilands Domain, the Waingongoro River site just above Ohawe Beach, the Lake Opunake site, the Patea River estuary site, the Manganui River site at Everett Park,, and the Lake Ratapiko site, have either never reached or else have had a maximum of 2 results in the 'Action' mode at any time during the last five seasons (i.e. at least a 97% compliance rate), under the sampling protocols of the SEM programme, and yet according to the Ministry for the Environment, all these sites should be deemed 'poor' sites for bathing.

Microbiological quality: NOF 'swimmability' criteria

In February 2017, MfE released proposals to further amend the NOF 'swimmability' criteria. These proposals were put into effect later that year. While data gathered within the Council's bathing season monitoring programmes is not collected as per the NOF specifications (which are for a year-round programme), this year's report assesses the state of Taranaki's freshwater bathing sites against the proposals, as a matter of information[3]. The monitoring data from Taranaki's freshwater bathing sites for the past five seasons have been analysed against the 2017 MfE criteria for 'swimmability' and the results are depicted in the table below. The NOF criteria do not include any minimum ('bottom line') requirements, but the government has announced its intention that 90% of the nation's rivers should be in the yellow, green, or blue categories (see table below) by 2040.

The Ministry has indicated that their view is that across all criteria, a single failure (i.e. either an 'orange' or a 'red') in any of the four distinct criteria is sufficient to constitute an overall 'unsuitable for swimming' grading. Of the 17 recognised freshwater recreational sites in Taranaki, for samples collected over the last five years under conditions suitable for recreation 7 sites satisfy all criteria, and another 2 fail only one of the four criteria.

What becomes apparent is that gradings denoting degrees of suitability for swimming vary immensely according to the particular criterion. For example, the quality of the Oakura River below SH45 can apparently be variously rated as 'excellent', 'good', 'fair', or 'only intermittently suitable' for swimming. Likewise, the Patea River at King Edward Park is either 'good', intermittently suitable', or not safe to swim in; and the Waingongoro River at Ohawe Beach could be variously graded as 'excellent' through to only 'intermittently safe', depending on the choice of criterion. This lack of rationalisation between criteria is not helpful for sensibly conveying 'swimmability' to the public.

Microbiological quality: LAWA 'Overall Recreational Risk' criteria

Of note, the LAWA website is about to publish an 'Overall Recreational Risk' assessment of freshwater bathing sites for all of New Zealand. The criterion applied differ from the 2003 guideline classification system and the NOF system, for the reasons outlined above. The LAWA classification considers all data from the last 3 years, with regard to the 95th%ile result- that is, at least 95% of all results must lie below either the 'Alert' threshold ('G*enerally suitable for swimming*') or the 'Action' threshold ('*Caution advised; avoid swimming if discoloured or for 2-3 days after heavy rain*'). Three of Taranaki's 16 sites are in the top category for quality (Patea River at boatramp, Urenui estuary, and Lake Ratapiko), and another 4 are in the cautionary category (Waiwhakaiho river at Merrilands Domain, Waingongoro River at Ohawe beach, Lake Opunake, and Manganui River at Everett Park).

[3] For a classification of Taranaki's waterways sampled and assessed according to the NOF 'swimmability' regulations, see ***Freshwater Physicochemical Programme State of the Environment Monitoring Annual Report 2016-2017,Technical Report 2017-64***, Taranaki Regional Council October 2018

Cyanobacteria
The presence of cyanobacteria can trigger health warnings in any of 3 ways- excessive coverage of the stream bed, exposure of algal mats on rocks at the water's edge, or excessive quantities of detached mats floating in the water column. There are national guidelines for unacceptable levels of stream bed coverage. In addition, the Council has chosen to adopt an approach when minor levels of exposed, detaching mats are detected that this should trigger an 'Alert' level as distinct from an 'Action' level, as the former better reflects the actual potential danger of benthic cyanobacteria. To date there have been no reported incidences of humans or animals in the Taranaki region having been harmed by toxins produced by benthic cyanobacteria though there may well have been unreported incidences. Microscopic analysis of benthic cyanobacteria reveals that toxin-producing bacteria are generally present.

For planktonic (floating) cyanobacteria, of the four designated lake monitoring sites, two had biovolumes exceeding contact recreational guidelines during the 2017-2018 season, requiring the erection of warning signs: Lake Rotokare (a natural bush catchment) for most of the summer and Lake Rotomanu up until March 2017. Planktonic cyanobacteria were not detected in Lake Opunake or Lake Ratapiko at any times of sampling throughout the season.

Benthic (streambed) cyanobacteria was monitored at nine locations and never reached public health warning levels on any cocasion at any site. On one occasion, the degree of exposure of mats at Merrilands Domain (Waiwhakaiho River) triggered the erection of warning signs for the time being. The number of sampling occasions varied among sites (10-19 sampling occasions) depending on whether sites reached an 'Alert' level.

Two sites on 2 occasions each had over 20% streambed coverage, thus triggering the 'Alert' level that requires follow-up weekly monitoring. This was a considerably lower level of elevated bed coverage across the region than generally in previous years. Exposed mats triggered the 'Action' or 'Alert' level at 2 sites (compared with 4 and 6 in the previous two years) on a total of 15 occasions (17 and 35 in the previous two years), and detaching mats accummulating on the river's edge triggered the 'Alert' level at 4 sites on a total of 8 occasions (15 and 41 in the previous two years).

Other matters
Microbial source determination testing has previously been conducted at a number of recreational sites, using environmental forensic DNA testing techniques. In the year under review, DNA marker tracking investigations in the Patea River at Stratford, the Waingongoro River at Eltham and the Timaru Stream have found that the principal faecal contributions were sourced from wildfowl and from ruminants. No human markers were found. The Council continues to use the technique for investigative purposes.

Conclusions
The report includes recommendations for the 2018-2019 bathing season that pertain to the scope of the sampling programme and integration with the dairy treatment pond compliance monitoring programme so that any adverse effects and sources can be efficiently identified and appropriate action taken. The recommendations are reproduced as an appendix to this memorandum, for the information of Members.

There is variability in quality between bathing seasons at each site, which is related to a variety of reasons including hydrological conditions, stock access, the presence of wildlife (particularly wildfowl), and dairy farm wastes disposal practices in particular. Similar results have been recorded elsewhere for sites in the middle and lower reaches of other streams and rivers in New Zealand (Deely et al, 1997 and MfE, 2008). The Ministry for the Environment identifies dense bird and wildlife populations, agricultural runoff, and storm water or sewerage discharges as potential sources of contamination.

These factors continue to be the major sources of adverse impacts on recreational water quality for the Council to address.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the Local Government Act 2002 has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the Local Government Act 2002, the Resource Management Act 1991 and the Biosecurity Act 1993.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the Local Government Act 2002) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document: 2110378 Executive summary and recommendations from '*Freshwater contact recreational water quality at selected Taranaki sites State of the Environment Monitoring Report 2017-2018, Technical Report 2018-01*, November 2018.

Executive summary

*(*from *'Freshwater contact recreational water quality at selected Taranaki sites State of the Environment Monitoring Report 2017-2018, Technical Report 2018-01')*

This survey of sixteen recognised freshwater contact recreational sites in the Taranaki region was the twenty-second of an on-going programme designed to annually monitor the bacteriological quality of lakes, rivers and streams at popular contact recreational sites during each bathing season. It forms a component of the State of the Environment bathing beaches trend monitoring programme, which commenced in the 1995-1996 summer period. Two sites (at Lakes Ratapiko and Opunake) were monitored in this programme during this 2017-2018 period for the twelfth time, partly as a component of the more recently instituted cyanobacteria programme (covering four lakes) instigated after consultation with Taranaki District Health Board. A site in the lower Waitara River was added in the 2010-2011 period at the joint request of Taranaki Healthcare and NPDC and two additional sites in the lower reaches of the Waiwhakaiho River and Te Henui Stream (both adjacent to the New Plymouth walkway) were included in the programme in the 2012-2013 period. The sixteen sites have been graded for recreational suitability (SFRG) according to MfE, 2003 guidelines, in part based upon the immediately preceding five seasons of monitoring data (where such data existed) although short-comings of this grading methodology are acknowledged. A re-assessed SFRG also has been provided by inclusion of the current season's data for comparative purposes and this showed minimal change of the microbiological water quality guideline over this latest five year period.

A further site (Lake Rotokare) has been monitored since 2007, principally for planktonic cyanobacteria. Additional comprehensive flowing water benthic cyanobacteria monitoring (at nine river/stream sites) was undertaken in the current period for the fifth time in this state of the environment programme.

Changes were made in 2016-2017 to follow protocols for reporting on the Land and Water Aotearoa (LAWA) website: sampling frequency at four of the most popular sites (Lake Rotomanu, Waiwhakaiho River at Merrilands Domain, and Kaupokonui and Waingongoro river mouths) was increased to weekly, mainly in dry weather, from December to February inclusive.

The results of the 2017-2018 survey have continued to illustrate variability in bacteriological water quality, with the highest quality achieved at the Urenui River estuary and lower Patea River sites where marked seawater intrusion is the norm (under high tide conditions), and Lakes Ratapiko and Rotomanu. Impacts on bacteriological water quality at some sites, particularly the lower reaches of the Waiwhakaiho River and Te Henui and Stream, were due principally to resident wild fowl populations in the vicinity of recreational usage sites (as confirmed previously by inspections and DNA marker surveys).

In terms of E. coli, bacteriological water quality in the latest survey period was lower than normal in comparison with historical surveys. The total number of samples falling within the "Alert" or "Action" categories (40% of samples) across the 16 recognised bathing sites was the highest recorded. However, it should be noted that the "Action" category is the only category for which swimming is not recommended. In the 2017-2018 season, 79% of all samples met the national bathing guideline, and this is a lower rate of non-compliance than in the previous two years. Of the 21% of samples that exceeded the guideline, 11% arose

from just two sites- the two New Plymouth urban sites. Bird life was mainly responsible for the exceedances at these sites, where on occasions recreationalists have fed the birds.

One site recorded all single samples in either the 'Alert' or the 'Action' mode of the MfE, 2003 guidelines (Waiwhakaiho River opposite Lake Rotomanu), while one site (Te Henui Stream near East End beach) recorded twelve single samples in those modes. Twelve other sites from time to time exhibited single sample entries, mainly into the 'Alert' mode of the 2003 guidelines, at some time during the season. Nine of these sites had counts which entered the 'Action' mode, a slight increase in the number and frequency of guideline exceedances in comparison with many previous seasons' results.

To a certain extent these exceedances were probably a feature common to the mid and lower reaches of rivers and streams draining developed (particularly agricultural) catchments throughout New Zealand.

Notably, only two exceedances of the MfE 'Action' guideline were found in the Waiwhakaiho River at Merrilands Domain (mid urban New Plymouth and downstream of agricultural land), whereas 10 of 13 samples exceeded this guideline near this river's mouth.

Notable increase in frequency of exceedance of the MfE 'Action' guideline since 2016-2017 occurred at three monitoring sites (Patea River at King Edward Park, Stratford, Waingongoro River at Eltham camp, and Timaru Stream at mouth). Investigation through inspection of potential faecal sources upstream found all farm waste disposal systems to be operated in compliance with resource consents and no influences in riparian areas. Water quality surveys, including microbial DNA analysis, in each case, found no human contamination, but varying amounts of both ruminant (mainly in upper Patea and Waingongoro) and avian (mainly in Timaru) contribution.

At most sites, minimal follow-up sampling was performed when deemed necessary following exceedances of the 'Action' limit, as in most cases bacteriological quality was found to have returned to typical levels within short time frames or the causes were well established from historical data. Permanent health warning signage had been erected by the New Plymouth District Council (on the direction of Taranaki District Health Board) following past exceedances of 'Action' levels at the lower Waiwhakaiho River and Te Henui Stream sites, and of 'Alert' levels at Waitara. Temporary signage was required at the Lake Rotomanu, and at Timaru,Stream and Oakura, Kaupokonui, upper Patea and upper Waingongoro Rivers sites following single sample 'Action' levels, but single sample 'Alert' level exceedances at other sites were not necessarily signposted.

Temporal trends over the 1996-2018 period have been evaluated on the basis of seasonal median E. coli count for the sixteen sites that have ten years or more data (and will continue to be assessed annually). One site (lower Waiwhakaiho River) has shown a statistically significant increasing trend. No other sites have shown statistically significant trends (positive or negative) in seasonal median E. coli counts.

Additional sampling (in accordance with the MfE, 2003 guidelines for datasets for grading purposes) at four principal usage sites (Lake Rotomanu and Waiwhakaiho, Kaupokonui and Waingongoro Rivers) occurred largely in dry weather and resulted in little change in the overall median bacteriological numbers.

Cyanobacteria blooms were recorded at Lake Rotomanu on most fortnightly surveys until March 2018, and at Lake Rotokare in November and December 2017. These numbers necessitated warning notices to avoid contact recreation in these waters during most of the

recreational period at Lake Rotomanu, and in early summer at Lake Rotokare. No planktonic cyanobacteria were found in Lake Ratapiko or Lake Opunake,

Benthic cyanobacteria were found occasionally in most of the nine rivers and streams monitored. Monitoring frequency was increased from fortnightly to weekly in response to 'Alert' levels found on several occasions. Two sites (Waingongoro and Kaupokonui Rivers at mouth) exceeded the 'Alert' level for bed coverage, both on two occasions. Exposed mats triggered the 'Alert' level at these two sites on a total of 15 individual site surveys, and detaching or detached mats accumulating on the river's edge triggered the 'Alert' level at the same four sites (Waingongoro River at Ohawe, Kaupokonui River at the mouth, and Waiwhakaiho River at the last riffle and at Merrilands Domain) on a total of 8 surveys. Levels of cyanobacteria were higher than in the previous season; and lower than the preceding three seasons, probably a reflection of the relative amounts of rainfall causing freshes that scour streambeds of periphyton.

Timely reporting of the results of bacteriological water quality and cyanobacteria numbers/cover was undertaken by use of the Taranaki Regional Council website (www.trc.govt.nz) and LAWA website (www.lawa.org.nz) as well as liaison with territorial local authorities and the Health Protection Unit of Taranaki District Health Board throughout the survey season of 2017-2018.

For the second time, this report also discusses the monitoring results in the light of the criteria for primary recreational use of water bodies ('swimmability') set out in the National Objectives Framework that is attached to the National Policy Statement for Freshwater Management 2014.

It is recommended that annual bacteriological monitoring of selected freshwater sites be continued (in conjunction with the coastal bathing water programme) by use of a similar sampling format over a five month (November to March inclusive) contact recreational period to provide information for trend detection purposes and for assessment of suitability for contact recreational usage. Cyanobacteria monitoring at the four lakes sites and nine stream/river sites at a lesser frequency is also recommended to continue. A further recommendation involves appropriate scheduling of the annual round of dairy wastes disposal systems and advice provided in relation to stock access to watercourses to attempt to reduce the frequency of exceedances of recreational limits particularly in catchments where historical problems from this source have been located.

6. Recommendations

(from 'Freshwater contact recreational water quality at Taranaki sites State of the Environment Monitoring Report 2017-2018, Technical Report 2018-01')

As a result of the 2017-2018 summer freshwater contact recreation bacteriological survey it is recommended:

1. THAT the 2018-2019 survey be performed at sixteen regular sites continuing with the existing sampling protocols during the season extending from 1 November to 31 March (and into April, if necessary).
2. THAT the 2018-2019 survey includes additional samples collected at the four principal usage sites (Lake Rotomanu, Waiwhakaiho River at the Merrilands Domain, Waingongoro River at Ohawe and Kaupokonui River at the mouth) in accordance with MfE, 2003 guidelines.
3. THAT the 2018-2019 summer survey includes cyanobacteria monitoring at the three lake sites and an additional lake (Rotokare) site and benthic cyanobacteria monitoring at nine of the river and stream sites fortnightly on at least ten occasions.
4. THAT follow-up sampling (after guideline exceedances) be performed when deemed necessary by TRC staff.
5. THAT appropriate timing of the annual dairy farms inspection round be incorporated into the programme for catchments where issues relating to exceedances of contact recreational standards have been identified and advice and publicity be provided in relation to the prevention of stock access to natural water.
6. THAT reporting of results be performed as appropriate during the season, and in an Annual Report upon completion of the season's programme.
7. THAT the appropriate statistical trend detection procedures be applied to the data and reported in the Annual Report

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: Bathing beach recreational water quality SEM report 2017-2018

Approved by: G K Bedford, Director-Environment Quality

B G Chamberlain, Chief Executive

Document: 2147201

Purpose

The purpose of this memorandum is to present to the Committee the report on the quality of coastal bathing waters in the Taranaki region during the 2017-2018 bathing season, as set out in the report *Bathing Beach Water Quality State of the Environment Monitoring Report Summer 2017-2018, Technical Report 2018-33*. The Executive summary and recommendations from the report are attached to this memorandum. The full report is available upon request, and will be published on the Council's website following this meeting.

Executive summary

The report provides an assessment of microbial water quality at 13 bathing beach sites in the Taranaki region, based on routine summer monitoring of faecal indicator bacteria (enterococci) in the 2017-2018 summer. A core group of 10 beaches is monitored every year, and another 10 are monitored over the course of a rotating 3-year cycle. Results are assessed for any evidence of trends, and for compliance with microbiological water quality guidelines for recreational use prepared by the Ministry for the Environment (MfE) and the Ministry of Health (MfE, 2003), and are released to the public via the Council's website.

Thirteen samples are collected at every site under bathing conditions ('SEM samples'), with 8 of the sites having a further 10 or so samples collected at each, under all-weather and all-tide conditions ('MfE samples').

During the 2017-2018 summer season, microbiological water quality across bathing beaches in the Taranaki region was adversely affected by higher than usual levels of rainfall during the period January-March, and particularly by Cyclone Fehi at the beginning of February. The greatest number of exceedances of the 'Alert' threshold occurred during February. The proportion of samples in this category was slightly higher than in the previous season. Median enterococci counts recorded in the SEM programme were lower at four sites, higher at seven sites and unchanged at two sites, when compared with their respective historical medians.

Out of the 245 samples collected for SEM purposes, 89% were below the intermediate 'Alert' level. Normally this figure is in the mid 90s range.

In the 2017-2018 season, Urenui, Fitzroy, Opunake, and Oakura (camping ground site) were the region's cleanest bathing beaches. It should be noted that even the beaches with the highest median counts, Oakura (surf club site) and Ohawe beaches, had median counts that were less than 30% of the 'Alert' threshold and less than 15% of the 'Action' threshold. Over the long term, Opunake, Oakura beach in front of the camping ground, Fitzroy, and Urenui beaches are amongst the region's cleanest.

The Fitzroy Beach site continues to show a statistically significant improvement. This may be associated with improvements to stormwater control in the vicinity. No site is showing a statistically significant deterioration, despite the inclusion in the record of the comparatively poorer results in the latest season. While Ohawe Beach has shown a significant trend of improvement from about 2003 (following the removal of the Eltham waste water discharge into the Waingongoro River), the quality has now stabilized. There is still an overall indicative improving trend.

In the case of the two Waitara beaches, this has been the fourth bathing season since the discharge of treated municipal sewage has been diverted to New Plymouth. Having noted that, the Waitara River rather than the outfall is considered to have had the greater effect on bacteriological quality on the beaches. Both beaches continue to show an improving (but not statistically significant) trend over recent years. The reducing trend at Waitara East beach is on the threshold of being considered significant.

Over the long term, 8 of the sites monitored during the season under review indicate a tendency towards improvement, and 2 towards deterioration. Three sites have insufficient data for trend analysis.

Through the Council's Long Term Plan (LTP) and 2017-2018 Annual Plan, the Council's target in respect of the microbiological state of coastal bathing sites is that there is *maintenance or increase in the number of sites from 2003 compliant with 2003 Ministry of Health contact recreational guidelines*. In 2003, 7 of 9 coastal bathing sites were compliant with the guidelines ('Action' levels). In the season under review, all 9 of these same sites were compliant throughout the season. One other site was deemed by Council officers to have had an 'Action' event during the season.

In terms of public interest in information about water quality at bathing beaches, visits to the individual web pages on the Council's website were well down on previous years, dropping by 2/3. In all probability this reflects the very wet or stormy conditions during January-March, especially during public holiday periods (New Year, Waitangi Day).

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum noting the preparation of the report *Bathing Beach Water Quality State of the Environment Monitoring Report Summer 2017-2018 Technical Report 2018-33*

2. adopts the specific recommendations presented in Technical Report 2018-33.

Background

Taranaki's coastal and inland fresh waters are widely used for a range of contact recreational activities such as swimming, sailing, surfing, wind surfing, and underwater diving. The sea is important as a source of kaimoana. Maintaining and protecting the quality of this recreational water is therefore an important resource management and public health issue.

The Council's draft Coastal Plan notes:-

The coastal environment is an important and valued part of Taranaki's environment and the quality of life offered by the region. The coastal marine area in particular is an extensive area of public space available for people to use and enjoy. It is where we play, gather food, undertake traditional practices, or relax. Many coastal resources and activities contribute to the economic, social and cultural well-being of communities.…

The resources of Tangaroa have provided for and nourished the iwi o Taranaki for generations. These resources were integral to the lives of the people who occupied the settlements that adjoined the coastline. Tangaroa provided for them materially, acted as a highway for travel, a source of rongoa (medicine), aided their well-being and provided for their spiritual sustenance….. Sustainable coastal management, through the exercise of kaitiakitanga and tikanga, is at the heart of the relationship between iwi o Taranaki and the coastal environment. This Plan has integrated iwi o Taranaki values throughout the Plan provisions.

The draft policies set out in the Plan address the public use and enjoyment of the coastal environment, including enjoyment of its amenity and recreational values. Through its Annual Plan, the Council is committed to monitoring the microbiological state of coastal bathing sites.

It is recognised that the quality of coastal waters in New Zealand is variable. It can be compromised by contaminants from sources such as sewage and storm water outfalls, septic tanks, urban run-off, birdlife, sanitation discharges from boats, and dairy effluent discharges and contaminated run-off from agricultural land. The Ministry for the Environment has identified that at a national scale, intensifying land uses in rural areas and rapid urban development of coastal areas have the potential to put increasing pressure on the quality of the country's coastal recreational waters.

As one of the suite of State of the Environment (SEM) monitoring programmes that the Council has in place, bathing water quality around the region's coastline is assessed each summer. Ten primary beach sites are repeatedly sampled during the bathing season every year, and another ten beaches are sampled one year in three on a rotating basis. The SEM programme began in 1995-1996 and there had also been a number of surveys prior to this time.

The bacteriological state of each site is compared with national guidelines[1].

Through the Council's LTP and 2017-2018 Annual Plan, the Council's target in respect of the microbiological state of coastal bathing sites is that there is *maintenance or increase in the number of sites from 2003 compliant with 2003 Ministry of Health contact recreational guidelines*. In

[1] *Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas*, Ministry for the Environment 2003

2003, 7 of 9 coastal bathing sites that are being monitored annually were compliant with the guidelines (i.e. went throughout the entire season without an 'Action' level event).

Discussion

The report presented to the Committee today summarises the results for the 2017-2018 bathing season, including beaches monitored in year three of the rotation.

Thirteen samples were collected over the bathing season at each of the 13 sites designated for the season, as part of the Council's regular SEM monitoring programme, with an additional 10 or so samples collected at 8 of the primary beaches to fulfil Ministry for the Environment requirements for calculation of microbiological assessment categories (which go beyond the Council's long-established programme and are sampled under a different protocol, including all-weather and all-tide conditions). Due to adverse weather and unsafe sampling conditions, not all sites were sampled on every occasion.

The monitoring results have been assessed using the national microbiological guidelines for marine recreational areas (MfE, 2003). The indicator bacteria measured are enterococci. Levels of less than 140 enterococci per 100 ml are considered to be acceptable (i.e. water quality is suitable for bathing, and approximately weekly sampling is routinely undertaken for surveillance purposes). Should any of these routine samples contain greater than 140 enterococci per 100 ml, the 'Alert' mode is triggered – water is considered potentially unsuitable for bathing, and further sampling is often undertaken. This is a surveillance mode, and it is not considered that public health has been compromised if sample results are at this level.

Samples containing greater than 280 enterococci per 100 ml indicate water is highly likely to be contaminated. The guideline recommendation is that further sampling is to be undertaken again within 24 hours, to see if the elevated bacteriological counts are continuing. If the second result in this case is also above 280, then the 'Action' categorisation is designated. That is, it is when there are two consecutive samples above 280 enterococci per 100 ml in a specific sequence, that it is considered public health is potentially compromised. Any follow-up action is in the hands of the Taranaki District Health Board. High flows in streams and rivers following rainfall events may have a major but localised influence on the water quality of Taranaki beaches, and re-sampling is not always undertaken if a significant rainfall event in the recent past is determined to be the likely cause of a sample exceeding 280 enterococci per 100 ml.

Microbiological water quality in the 2017-2018 season was adversely affected by higher than usual levels of rainfall during the period January-March, and also particularly by Cyclone Fehi at the beginning of February (coinciding with a king tide height). Four of the five highest enterococci counts recorded this season were likely due to the exceptionally turbulent sea conditions in the aftermath of this event. Faecal indicator bacteria are known to have extended survival within sediments as distinct from the water column; near-shore turbulence will re-suspend these sediments and cause elevated indicator bacteria counts independently of any contemporary or recent discharge. There was a comparatively very low number of elevated counts in November-December, which were drier than usual.

During the 2017-2018 summer season, 89% of the 245 scheduled samples remained within surveillance mode. This percentage figure is normally in the mid-90s range. However, median enterococci counts recorded in the SEM programme were still lower than usual at four sites of the 13. They were higher at seven sites and unchanged at the remaining two sites, when

compared with their respective historical medians. In the previous season, 9.4% of samples had exceeded the 'surveillance' ceiling; in the season under review this rose slightly to 10.6%.

An SEM sampling run had been scheduled to occur about the time that Cyclone Fehi struck. This survey was disrupted due to safety considerations, and a replacement survey undertaken six days later. At Wai-iti, a high enterococci count had been found in a sample collected at the start of the otherwise disrupted survey run; due to turbulent and stormy conditions no follow-up sample could be collected according to the guideline's protocols (nor was a follow-up necessary in terms of public health, given the adverse conditions). The sample collected within the replacement survey 6 days later also showed a high count: Council officers have deemed this event an 'Action' event given two consecutive samples exceeded the threshold, even though the second sample was collected outside the guideline period. A subsequent sample showed that enterococci levels had returned to a very low concentration. There were no other 'Action' incidents at any site during the season.

An analysis of causes of exceedances of the 'surveillance' band maximum indicated freshwater influence on 6 occasions, the presence of bird life on 5 occasions, and sea turbulence due to Cyclone Fehi on 6 occasions. The highest enterococci counts were recorded during Cyclone Fehi.

Based on median counts in the 2017-2018 season, Urenui, Opunake, Fitzroy and Oakura beach in front of the camping ground were the region's cleanest bathing beaches. These results largely mirror those of past years. Opunake and the Oakura beach in front of the camping ground are consistently the best in the region.

As is the case in previous years, Oakura Beach (surf club site) and Ohawe Beach were comparatively the worst, while noting that their seasonal medians of 44 and 42 were still only 15% of the 'Action' and 30% of the 'Alert' trigger levels. Further, neither site showed a greater percentage of individual samples reaching the 'Alert' level than occurred at other sites. Median counts at both beaches in 2017-2018 were comparatively well above those in their long-term records. Ohawe Beach has shown a trend of improvement in previous years (following the removal of the Eltham waste water discharge into the Waingongoro River), although the quality has now stabilized. There is still an overall indicative improvement at this site across the record.

Both of these sites show a particularly pronounced riverine influence, and this would have contributed to the relatively higher median counts in the season under review, alongside the effects of Cyclone Fehi and birdlife. Closer tracking of changes in the position of the mouths of the river/stream discharging onto these beaches will be incorporated into the monitoring record in future.

In the case of the two Waitara beaches, this has been the fourth season since the discharge of treated municipal sewage has been diverted to New Plymouth. Having noted that, the Waitara River rather than the outfall was considered to have had the greater effect on bacteriological quality on the beaches. Both beaches continue to show an improving (but not statistically significant) trend over recent years. The trend at Waitara East is just outside the criterion for being considered statistically significant. Over 90% (Waitara East) and 95% (Waitara West) of all samples remained below even the 'Alert' level.

The site at Fitzroy Beach is showing a statistically significant improvement. This may be associated with improvements to stormwater control in the vicinity, undertaken by NPDC.

No site is showing a significant deterioration over the record of results. In terms of indicative (as distinct from statistically significant) trends, a further seven sites are showing signs of reductions in median enterococci, while two are showing signs of an increase ie indications of improvements are outnumbering deteriorations by around 4 to 1 overall.

In terms of the Council's target in respect of the microbiological state of coastal bathing sites as expressed in the Council's LTP and 2017-2018 Annual Plan, the target is that there is *maintenance or increase in the number of sites from 2003 compliant with 2003 Ministry of Health contact recreational guidelines*. In 2003, 7 of 9 coastal bathing sites that were monitored annually were compliant with the guidelines (ie remained throughout the season below the 'Action' level category). In the 2017-2018 season under review, all SEM sample results at the same 9 beaches were compliant with this guideline. The LTP target was therefore met.

Frequent and timely reporting of the results of bacteriological water quality was undertaken by use of the Taranaki Regional Council website (www.trc.govt.nz) as well as liaison with territorial local authorities, the Health Protection Unit of Taranaki District Health Board, and Ngāruahine throughout the summer bathing season of 2017-2018.

Continuation of the bathing beach SEM programme in the 2018-2019 bathing season is recommended.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 2119009: Bathing Beach Water Quality State of the Environment Monitoring Report Summer 2017-2018, Technical Report 2018-33 (executive summary and recommendations).

Executive summary

This report provides an assessment of microbial water quality at 13 bathing beach sites in the Taranaki region, based on summer monitoring of faecal indicator bacteria conducted by the Council between 7 November 2017 and 9 April 2018. The report focusses on enterococci results, as this indicator is considered by health authorities to provide the closest correlation with risks of health effects in New Zealand coastal waters. Results have been assessed for compliance with microbiological water quality guidelines prepared by the Ministry for the Environment (MfE) and the Ministry of Health (MfE, 2003).

Thirteen samples were collected at every monitored beach under dry weather conditions for State of the Environment Monitoring (SEM) purposes, except when it was unsafe to do so. At eight of the ten coastal sites monitored every year, up to an extra 11 samples were collected to satisfy MfE requirements for the number of seasonal samples to be used for grading purposes and to provide more timely results during the holiday periods. Follow up samples were often collected following instances where enterococci counts exceeded 140 cfu/100 ml.

During the 2017-2018 summer season, 89% of the 245 scheduled samples remained within surveillance mode. January, February and March were the months where the highest proportions of samples exceeded the MfE guidelines. These three months also received considerably higher levels of rainfall than normal. Four of the five highest enterococci counts recorded this season were likely due to the exceptionally turbulent conditions resulting from Cyclone Fehi, at the beginning of February. Median enterococci counts recorded in the SEM programme were lower at four sites, higher at seven sites and even at two sites, when compared with their respective historical medians.

The guideline MfE Action mode is reached when enterococci counts in two consecutive samples exceed 280 enterococci cfu/100 ml. In the summer under review, Action mode was reached once during follow up sampling.

Mann-Kendall tests were performed in order to assess long term trends in microbiological water quality. One site, Fitzroy Beach, showed a significant decrease in median enterococci counts (improving quality) over the 23 years it has been monitored, indicating an overall improvement in microbiological water quality. No site showed a significant increase in enterococci medians over the time period monitored i.e. deterioration in water quality. Microbiological water quality results were regularly reported on the Taranaki Regional Council website (www.trc.govt.nz) and there was timely liaison with territorial local authorities and the Health Protection Unit of the Taranaki District Health Board throughout the summer bathing season of 2017-2018.

Through the Council's Long Term Plan (LTP), the Council's target in respect of the microbiological state of coastal bathing sites is that there is maintenance or increase in the number of annual monitoring sites from the 2003-2004 summer that are compliant with the contact recreational guidelines (MfE, 2003). In the 2003-2004 summer, seven of the nine coastal bathing sites were compliant with the guidelines (Action levels). In the season under review, all sample results at the same nine beaches were compliant with this guideline. The LTP target was therefore met.

Continuation of the Bathing Beach Recreational Water Quality Programme in the 2018-2019 year is recommended.

Recommendations

As a result of the 2017-2018 summer marine contact recreation bacteriological survey it is recommended:

1. THAT the 2018-2019 summer survey be performed at 14 sites continuing with the existing sampling protocol (all sites scheduled to be monitored annually, plus Year 1 sites).
2. THAT the 2018-2019 summer survey also includes weekly 'extended samples' at eight sites (Onaero, Waitara West, Waitara East, Fitzroy, Ngamotu, Oakura Surf Club, Opunake and Ohawe) between December and February in accordance with MfE, 2003 guidelines to provide up to date public information on beach conditions throughout the holiday periods.
3. THAT follow-up sampling be performed as deemed necessary by Council staff.
4. THAT photographs of the position of the Waimoku Stream and Waingongoro River mouths are taken over the 2018-2019 season to aid the interpretation of faecal indicator bacteria results at the Oakura Beach and Ohawe Beach sites respectively.
5. THAT public reporting of results be performed as appropriate during the season, and in an annual report upon completion of the season's programme.

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Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: National Policy Statement for Freshwater Management: Adoption of Progressive Implementation Programme and annual report

Approved by: A D McLay, Director – Resource Management

B G Chamberlain, Chief Executive

Document: 2137769

Purpose

The purpose of this memorandum is to:

- report on the implementation programme for the *National Policy Statement for Freshwater Management 2014* (NPS-FM) for the 2017/2018 financial year and
- recommend the adoption of a revised progressive implementation programme (PIP) for implementation of the NPS-FM.

A copy of a draft revised PIP is attached to this memorandum.

Executive summary

- Under the *Resource Management Act 1991* (RMA), regional policy statements and plans must give effect to any national policy statement.
- The NPS-FM sets out national direction on freshwater objectives under the RMA.
- Where regional councils cannot fully implement the NPS-FM by 31 December 2015, Policy E1 of the NPS-FM requires the council to prepare and annually report on a progressive implementation programme.
- The NPS-FM originally required the PIP to be prepared and publicly notified by 31 December 2015, which this Council did. Subsequent amendments to the NPS-FM enacted in 2017 required (amongst other things) councils to review, revise if necessary, and formally adopt (and publicly notify) any PIP by 31 December 2018.
- The attached PIP gives effect to that requirement and supersedes the 2015 version.
- The content of this memorandum also gives effect to the Policy E1(e) reporting requirements of the NPSFM. Key highlights for the 2017/2018 financial year are as follows:
  - on the ongoing engagement, research, investigations and information gathering underpinning the development of a Proposed Freshwater and Land Plan continued

including completion of a review of recommended environmental flow limits and continued development of a freshwater quantity accounting system
- continued development of freshwater quality accounting system – note NPS-FM (including the recent 2017 amendments) and NOF directions relating to monitoring freshwater quality has significant implications for existing monitoring programmes. Accordingly, development of the freshwater quality accounting system will continue to be a work in progress, at least in the short term
- the setting of draft regional swimmability targets
- 74 consents were granted pursuant to existing regional plans and the *Requirements for Good Farm Management* document. Through the consenting process, farm dairy effluent systems are now generally required to divert effluent to land
- Council and farmers on intensively farmed land continue to progress stock exclusion and riparian planting on the ring plain and coastal terraces. As at 30 June 2018, 86% of riparian plan streams are now fenced and 72% protected by vegetation (where recommended).

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum and attached *Progressive Implementation Programme for the National Policy Statement for Freshwater Management, Taranaki Regional Council* and public notice
2. approves the *Progressive Implementation Programme for the National Policy Statement for Freshwater Management, Taranaki Regional Council, November 2018*
3. agrees that the Implementation Programme be publicly notified
4. notes the progress on the implementation of the NPS-FM for the 2017/2018 financial year.

Background

Freshwater is one of our region's most valuable and important resources. The NPS-FM was first adopted in 2011, with amendments being subsequently adopted in 1 August 2014 and 7 September 2017.

The NPS-FM sets national directions under the RMA for improving or maintaining water quality and protecting important ecosystems in our lakes, rivers, streams and aquifers. Under sections 62(3) and 67(3)(a) of the RMA, regional policy statements and regional plans must give effect to the NPS-FM. The NPS-FM does not specify exactly how it should be implemented, or how policy statements and plans should be amended. That is for the Council and community to determine, reflecting regional circumstances.

The implementation of the NPS-FM in the Taranaki region does not start from a blank canvas. Of note, state of the environment reporting shows that Council programmes and activities have been generally efficient and effective in meeting NPS-FM objectives and policies for freshwater quality and quantity. For example, Council monitoring shows that overall surface water and groundwater quality in the region is in the A or B band for most attributes in Appendix 2 of the NPS-FM, and is being maintained or is improving.

Notwithstanding the above, the NPS-FM contains significant new and additional concepts

and elements relating to plan development, limit setting and processes that councils must give effect to over time. Accordingly, in accordance with the NPS-FM, the Council has until **31 December 2025** to implement the NPS-FM (Policy E1(b) of the NPS-FM), and until **31 December 2030** if it considers that meeting the earlier date would result in lower quality planning or it would be impracticable to complete implementation of a policy by that date (Policy E1(ba) of the NPS-FM).

Pursuant to E1(c) of the NPS-FM, where regional councils cannot fully implement the NPS-FM by 31 December 2015, i.e. by having an operative plan (post appeals/Environmental Court), they must prepare a progressive implementation programme for giving effect to the NPS-FM.

Policy E1 of the NPS-FM reads as follows:

"a) This policy applies to the implementation by a regional council of a policy of this national policy statement.

*b) Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than **31 December 2025**.*

*ba) A regional council may extend the date in Policy E1 (b) to **31 December 2030** if it considers that:*

i) meeting that date would result in lower quality planning; or

ii) it would be impracticable for it to complete implementation of a policy by that date.

c) Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2015, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2025 or 31 December 2030 if Policy E1 (ba) applies.

d) Any programme of time-limited stages is to be formally adopted by the council by 31 December 2015 and publicly notified.

e) Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.

f) Any programme adopted under Policy E1 c) of the National Policy Statement for Freshwater Management 2011 or Policy E1 c) of the National Policy Statement for Freshwater Management 2014by a regional council is to be reviewed, revised if necessary, and formally adopted by the regional council by 31 December 2015, and publicly notified.

g) Every regional council must, at intervals of not more than five years, compile and make available to the public a review of the improvements to specified rivers and lakes, and primary contact sites, made in giving effect to Policy A5."

Members may therefore recall that at the Policy and Planning Committee meeting of 26 November 2015, Council adopted and agreed to publicly notify a 2015 version of its progressive implementation programme (PIP). However, following amendments to the NPS-FM in 2017, councils that have adopted any programme under the 2011 and 2014 versions of the NPS-FM must review, revise (if necessary) and formally adopt their PIP by 31 December 2018, and publicly notified it.

Subsequently, Council officers have reviewed the 2015 PIP and presents a revised programme for Members' consideration. Please note that the attached PIP is not open for submissions.

Progressive implementation programme for Taranaki 2018

To briefly recap, the Council's revised PIP largely confirms the scope and content of the 2015 version but has been updated. Key projects and activities for implementing the NPS-FM in Taranaki are grouped under the following headings:

- amendments to regional policy statements and plans
- implementation of current plans and assessment of resource consents
- implementation of other supporting initiatives that sit outside statutory documents and/or RMA consenting processes.

As indicated in the revised PIP, significant elements of the NPS-FM are already being given effect to through existing and ongoing Council programmes and activities. Of particular note, through the current Freshwater Plan and associated resource consenting process, Council continues to assess and make decisions on applications relating to freshwater resources. In doing so, Council is giving effect to most NPS-FM water quality and quantity objectives and policies of the NPS-FM.

Also of note, Council undertakes and implements a range of other initiatives that, while sitting outside statutory documents and/or the requirements of the RMA, nevertheless give effect to various NPS-FM objectives and policies. They include:

- implementation of extension programmes such as the Taranaki Riparian Programme, the Sustainable Hill Country Programme, the Wetlands Programme and the Key Native Ecosystems Programme
- general liaison, advice and education with resource users to promote behavioural changes and best practice that also support the maintenance and enhancement of freshwater quality in the region and the protection of wetlands
- tangata whenua participation on Council standing committees relating to resource management
- economic instruments and other support and assistance
- implementation, review, and adoption of freshwater monitoring activities to assess and report on freshwater issues and trends in the region. A number of new or amended monitoring programmes are required to give effect to a number of new concepts and requirements set out in the NPS-FM, particularly in association with monitoring the National Objectives Framework and the development and refinement of accounting systems for freshwater quality and quantity.

The PIP recognises that the key vehicle for implementing and giving full effect to the NPS-FM (particularly in relation to incorporating the National Objectives Framework) is the Council's review and amendments to existing planning documents, particularly the *Regional Freshwater Plan for Taranaki* and *Regional Soil Plan for Taranaki*. The PIP identifies four key phases relating to the plan reviews. They are:

1. Preliminary community and stakeholder engagement: This phase relates to early consultation with key stakeholders on freshwater management issues and major proposed changes, the establishment of a stakeholder focus group, the commissioning of research and preparation of a suite of technical documents and position papers, leading to development and consultation on a draft Plan.

   This phase has been completed.

2. Further investigations and engagement to develop a Proposed Plan: This phase relates to ongoing information gathering, investigations, engagement and consultation to work through issues identified through the draft Plan process, leading to the development of a Proposed Plan.

   As appropriate, throughout this phase, Council will endeavor to respond and, if necessary, amend its draft planning documents to give effect to new or proposed national policy initiatives such as the *National Policy Statement for Urban Development Capacity* (2016), amendments to the RMA (2017), amendments to the NPS-FM, including incorporation of Te mana o te Wai and amendments to NOF provisions, attributes and values (2017), promulgation of the *National Environmental Standard for Plantation Forestry* (2017), and national requirements for councils to set draft and final regional targets for swimmability (2018)

   This phase is in progress.

3. Proposed Plan under Schedule 1 of the RMA: This phase relates to initiating the formal RMA process of publicly notifying a Proposed Plan, seeking public submissions/ further submissions, and holding a hearing of submissions prior to the Council releasing its formal decisions.

   This phase is not yet due to be commenced.

4. Appeals and final adoption of the Plan: Any person who has made a submission on the Proposed Plan can appeal Council's decision to the Environment Court. If no appeals are lodged the Council can immediately make the plan operative. If appeals are lodged then the Council will enter into mediation or Environment Court hearings. Only after all appeals are resolved, and the Plan amended accordingly, can the Council then make the Plan operative.

   This phase is not yet due to be commenced.

In accordance with the PIP's indicative timeframe, Council is currently in Phase 2 with the expectation that a *Proposed Freshwater and Land Management Plan for Taranaki* (Proposed Plan) will be publicly notified under Schedule 1 of the RMA by December 2020, but sooner if practicable.

The December 2020 timeframe for public notification of a Proposed Plan gives the Council additional time to undertake further research and iwi and stakeholder engagement to work through issues raised in the draft Plan and to give full effect to the NPS-FM (rather than relying on separate statutory and/or collaborative processes to deliver different components of the NPS-FM). It also affords the Council the opportunity to take into account and respond to/incorporate new Government directions and initiatives such as national planning standards and amendments to NOF.

Annual report on NPS-FM implementation 2017/2018

Under Policy E1(e) of the NPS-FM, Council must annually report on the extent to which the PIP has been implemented. Set out below is a summary of and discussion on the key activities and milestones achieved in 2017/2018 in relation to the implementation of the 2015 version of the PIP. The content of this memorandum gives effect to the Policy E1(e) reporting requirement.

Implementing NPS-FM through regional plan reviews
In accordance with the PIP the Council anticipates publicly notifying a Proposed Plan by

December 2020 or earlier. In the interim, progress on the development of the Proposed Plan, including the underpinning policy positions, continued in 2017/2018. Of particular note, in 2017/2018, Council undertook the following activities:

- In December 2017, Council commissioned NIWA to investigate instream health and water quality arising from riparian management activities in Taranaki waterways. The report *Analysis of Stream Responses to Riparian Management on the Taranaki Ring Plain*. The report, which was published in March 2018, confirmed the effectiveness of riparian management as a mitigation tool for inclusion in the Plan to ensure Taranaki's generally high water quality can be maintained and enhanced into the future. The study found the Council's long-running non-regulatory riparian management programme has led to improved ecological health in the region's waterways, as well as reduced *E. coli* levels.
- Established draft regional targets for swimmable rivers and lakes for the Taranaki region that will ultimately need to be included in a revised Plan.
- Commissioned Dr I Jowett to undertake a review of environmental flow limits and produce a report titled *Review of Minimum Flows and Water Allocation in Taranaki*. This study addresses concerns raised by some submitters in relation to appropriate environmental flow limits for Taranaki waterways. The report examines international and national research that has been carried out into the effects of water abstraction and includes methods and principles for setting minimum flows and allocation limits in a revised Plan. The study is based upon flow data across a sample of Taranaki waterways and provides a range of scenarios for setting minimum flows and allocation limits that would provide various levels of protection addressing fish habitat and the ecological health of rivers and streams and inform further stakeholder engagement.
- In March 2018, Council adopted the internal report *Incorporating Mātauranga Māori into Council Monitoring of Fresh Water*. The report provides a brief overview of the successes and challenges that other regional councils have experienced while incorporating Mātauranga Māori into their freshwater planning and monitoring, identifies some frameworks and monitoring tools currently being used around the country, as well as indicators from a Māori perspective and a western science view. The report further presents some recommendations for the Council to incorporate Mātauranga Māori into its freshwater planning and monitoring framework as required by Policy CB1(v) of the NPS-FM. The internal report is being used to inform Council's consultation and discussion with iwi in what is a complex area. The regional council sector is also preparing a stocktake report on Mātauranga Maori.
- Continued work on draft Plan provisions to, where practicable, incorporate the results of further engagement and investigations. This included evaluating and responding to national freshwater initiatives (and their implications for Council and draft Plan provisions).
- Continued work on the Section 32 RMA costs and benefits assessment for the Proposed Plan, including further work, investigations and research on the setting and monitoring of water quality and quantity limits.

<u>Implementing the NPS-FM through the resource consenting process</u>

Through the current Freshwater Plan and associated resource consenting process, in 2017/2018 Council continued to assess and make decisions on applications relating to freshwater resources.

In 2017/2018, 308 consents were granted, 277 (or 90%) of which related to freshwater. All these consents were granted pursuant to the policies of the Freshwater Plan, which includes NPS-FM transitional policies relating to freshwater quality and quantity.

Of particular note, 74 farm dairy effluent consents were processed in 2017/2018. Seventy two of these or 97% of those were approved subject to discharging to land or subject to conditions that the farm dairy effluent disposal would (in full or in part) be discharged to land after a transition period. The switch to land-based disposal (which is already well underway in Taranaki) will occur within reasonable timeframes as consents come up for renewal. By 30 June 2018, 60% of the 1,671 FDE systems now discharge to land (compared to 58% in the preceding year).

Implementing the NPS-FM through other freshwater programmes

In 2018/2019 Council implemented a range of non-regulatory and supporting initiatives that, while sitting outside statutory documents and/or the requirements of the RMA, nevertheless gave effect to various NPS-FM objectives and policies. Highlights are as follows:

- Ongoing progress in stock exclusion and riparian planting contributes to giving effect to objectives A1 and A2 and policies A6 and A7 [Water quality] of the NPS-FM.
- 101 riparian plans covering 363 kilometres of stream bank prepared that financial year. Plan recommendations propose 154 kilometres of riparian management with the balance of 209 kilometres already being adequately protected.
- As at 30 June 2018, 2,788 riparian management plans have been prepared recommending the planting of 6,098 km and fencing of 6,954 km of stream banks on the ring plain and coastal terraces. At 30 June 2018, 45.7% (up from 41.4% in 2015/2016) of the recommended planting and 68.3% (up from 65.7% in 2015/2016) of the recommended fencing had been completed resulting in 85% of riparian plan streams now protected by fencing and 71.7% by vegetation where recommended.
- 430,567 riparian plants were sold to 774 plan holders at cost. As at 30 June 2018, 5.1 million riparian plants have been sold to riparian plan holders.
- Tangata whenua representation and contribution to resource management decision making on the Policy and Planning and Consents and Regulatory committees contributes to giving effect to Objective D1 and Policy D1 [Tangata whenua] of the NPS-FM.
- Ongoing implementation and refinement of freshwater monitoring activities to give effect to a number of new concepts and requirements set out in the NPS-FM, particularly in association with monitoring the National Objectives Framework and the development and refinement of accounting systems for freshwater quality and quantity. Of particular note, in 2017/2018, the Council:
  - updated its freshwater quantity accounting system. The spreadsheet based system sets out, for all Taranaki rivers and streams with consented takes, the amount of allocable water, minimum flows and the remaining available water for consumptive uses. The freshwater quantity accounting system is a live document that is updated when water permits are surrendered and/or new permits issued
  - amended the Periphyton monitoring programme as part of fulfilling the requirements of the amended NPS-FM which specified periphyton as one of the compulsory ecosystem health attributes for councils to monitor[1]

[1] *Prior to the changes the Council had an existing SEM Periphyton monitoring programme that had been operative since 1996 collecting data at 21 sites around the region, conducted every spring and summer including annual summer chlorophyll-a sampling and reported*

  - ongoing state of the environment monitoring to assess and report on freshwater issues and trends in the region.
- Set and published Draft Regional Targets for Swimmable Rivers and Lakes for the Taranaki Region in March 2018 (refer to separate item for further information).

Table 1 below sets out a summary of the key activities and milestones in the implementation of the NPS-FM relating to the development of a Proposed Plan.

Table 1: Key activities giving effect to the NPS-FM 2017/2018

Key activities	Gives effect to NPS-FM provisions
Regional plan reviews	Objective AA1 and Policy AA1 [Te Mana o te Wai] Objectives A2 and A3 and policies A1, A2, A3, A5 and A6 [Freshwater quality] Policies B1, B2, B3 and B6 [Freshwater quantity] Objective C1 and Policy C1 [Integrated management] Objective CA1 and policies CA1, CA2, CA3 and CA4 [National Objectives Framework
Resource consenting process	Objectives A1, A2, and A4, and policies A4 and A7 [Freshwater quality] Objectives B1, B2, B3, B4 and B5, and policies B4, B5, B7, and B8 [Freshwater quantity] Objective C1 and Policy C1 [Integrated management] Objective D1 and Policy D1 [Tangata whenua roles and interests]
Other freshwater programmes	Objectives A1 and A2 and policies A6 and A7 [Freshwater quality] Objective CB1 and policies CB1, CB2, CB3 and CB4 [Monitoring plans] Objective CC1, and policies CC1 and CC2 [Accounting] Objective D1 and Policy D1 [Tangata whenua] Policy E1 [Progressive implementation programme]

Decision-making considerations

Part 6 (Planning, decision-making, and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

biannually against existing criteria. The new NPS-FM Periphyton monitoring programme is more rigorous requiring monthly monitoring regime regardless of weather or flow conditions at sites representative of each freshwater management unit, with the additional nutrient sampling to be undertaken concurrently with chlorophyll-a sampling, and more stringent criteria.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Attachments

Document 2060512: Progressive Implementation Programme for the National Policy Statement for Freshwater Management 2018.

Document 2140946: Public Notice: Progressive Implementation Programme.


Progressive Implementation Programme
for the National Policy Statement
for Freshwater Management
Taranaki Regional Council
Taranaki
Regional Council
Working with people | caring for Taranaki
20 November 2018
Document number: 2060512

Contents

1. Introduction

Purpose

The purpose of this document entitled *Progressive Implementation Programme for the National Policy Statement for Freshwater Management – Taranaki Regional Council* (PIP) is to set out the Taranaki Regional Council's (the Council) staged implementation programme of key projects for implementing the *National Policy Statement for Freshwater Management 2014* (NPS-FM).

This document gives effect to Policy E1 requirements of the NPS-FM and supersedes the Council's previous implementation programme, which was publicly notified in 2015.

Context

The NPS-FM initially came into effect on 1 August 2014 and was updated in August 2017 to incorporate amendments from the *National Policy Statement for Freshwater Amendment Order 2017*.

The NPS-FM sets a new direction for improving or maintaining water quality and protecting important ecosystems in our lakes, rivers, streams and aquifers. Under sections 62(3) and 67(3)(a) of the *Resource Management Act 1991* (RMA), regional policy statements and regional plans must give effect to the NPS-FM.

The NPS-FM does not specify exactly how it should be implemented, or how regional policy statements and plans should be amended. That will be up to councils and the local community to determine, reflecting regional differences. However, Policy E1 of the NPS-FM states that if it is impractical for a regional council to fully complete implementation of the NPS-FM by 31 December 2015, i.e. by having a fully operating plan (post appeals/Environmental Court) then it may implement it by a programme of defined time-limited stages by which it is to be fully implemented by **31 December 2025** or **31 December 2030** (if certain circumstances apply).

Policy E1 reads as follows:

(a) *This policy applies to the implementation by a regional council of a policy of this national policy statement.*

(b) *Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than 31 December 2025.*

(ba) *A regional council may extend the date in Policy E1 (b) to 31 December 2030 if it considers that:*

- *i) meeting that date would result in lower quality planning; or*
- *ii) it would be impracticable for it to complete implementation of a policy by that date.*

(c) *Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2015, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2025 or 31 December 2030 if Policy E1 (ba) applies.*

(d) *Any programme of time-limited stages is to be formally adopted by the council by 31 December 2015 and publicly notified.*

(e) *Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.*

(f) *Any programme adopted under Policy E1 c) of the National Policy Statement for Freshwater Management 2011 or under Policy E1 c) of the National Policy Statement for Freshwater Management 2014 by a regional council is to be*

reviewed, revised if necessary, formally adopted by the regional council by 31 December 2018, and publicly notified.

(g) Every regional council must, at intervals of not more than five years, compile and make available to the public a review of the improvements to specified rivers and lakes, and primary contact sites, made in giving effect to Policy A5.

This Council has commenced a review of its *Regional Freshwater Plan for Taranaki* and *Regional Soil Plan for Taranaki* that will give effect to the NPS-FM. However, the ongoing review process and the final adoption of a reviewed plan will occur post 31 December 2015. Therefore, in December 2015, the Council adopted its first PIP.

Subsequent amendments to the NPS-FM in 2017 state that any progressive implementation programme adopted under the 2011 and 2014 versions of the NPS-FM must now be reviewed, revised if necessary, and formally adopted by the regional council by 31 December 2018, and publicly notified.

The Council reviewed its 2015 PIP and has adopted a revised programme, which is presented in this document. Please note that it is not open for submissions.

Monitoring confirms that water quality in the Mangaehu River (a hill country sourced tributary of the eastern hill country) is within the National Objectives Framework's 'A' band for Total Oxidised Nitrogen and Ammoniacal nitrogen.

2. Work to date (to December 2018)

The implementation of the NPS-FM in the Taranaki region does not start from a blank canvas. Council work programmes and activities already give effect to key elements of the NPS-FM. These include:

- Operative first generation *Regional Freshwater Plan for Taranaki* (2001) that addresses NPS-FM objectives and policies relating to water quality, water quantity, integrated management, values, monitoring, and tangata whenua roles and interests.
- Operative first generation *Regional Soil Plan for Taranaki* (2001) that contributes NPS-FM objectives and policies, particularly in relation to water quality and integrated management.
- As part of the Taranaki Riparian Management Programme, Council has been working with dairy and other intensive pastoral farmers since 1994 to fence, planting, and/or retire riparian margins on the ring plain and coastal terraces.
- As part of the Sustainable Land Management Programme and the South Taranaki and Regional Erosion Support Scheme (STRESS), Council has been working with hill country farmers since 1995/66 to improve land management practices and, amongst other things, minimize the escape of sediment from erosion prone land into waterways.
- Over the 'life' of the current Plan Council has been working with industry and district councils to upgrade and where possible eliminate all town waste discharges into rivers.
- 2008: Interim review, involving targeted consultation, on the efficiency and effectiveness of the Freshwater Plan. Interim review confirmed the efficiency and effectiveness of Plan provisions, including progress on the achievement of freshwater outcomes.
- 2009: Interim review, involving targeted consultation, on the efficiency and effectiveness of the Soil Plan. Interim review confirmed the efficiency and effectiveness of Plan provisions, including progress on the achievement of soil conservation outcomes (which in term has implications for sediment loads from erosion prone land).
- 2010: Second generation *Regional Policy Statement for Taranaki*, which became operative on 1 January 2010. The Regional Policy Statement included the identification of outstanding waterbodies, and rivers and stream catchments with high water quality, natural, ecological and amenity values.
- 2012 to 2014: Stakeholder Focus Group established and industry sector group engagement undertaken to help discuss key issues and key changes and inform the early development of a draft Freshwater and Land Management Plan. Representation on the Focus Group included:

  Federated Farmers
  Fonterra Shareholders Council
  Fonterra
  DairyNZ
  Open Country
  Parininihi ki Waitotara
  Fish and Game Taranaki
  Queen Elizabeth II National Trust.
  Department of Conservation
  New Plymouth District Council
  Forest and Bird
  Ngāti Ruanui
  Trustpower
  South Taranaki District Council
  Stratford District Council

- 2012 to 2015: Consultation with recognised iwi across the region (Taranaki, Ngāruahine, Ngāti Ruanui, Ngaa Rauru, Ngāti Maru, Ngāti Tama, Ngati Mutunga, Te Atiawa). All iwi have contributed to a tangata whenua vision and policy development for a draft Freshwater and Land Management Plan.

- 2012 to 2015: Background research, investigations and studies on a range of complex and contentious freshwater topics. These include industry specific 'future directions' reports for gravel extraction, farm dairy effluent, nutrient management, indigenous biodiversity, small stream modifications, oil and gas, outstanding waterbodies, and native fisheries.
- 2012 to 2015: Technical and monitoring documents created on topics affecting freshwater quality, plus research into suggested water quality limits for Taranaki's rivers and streams, including the NIWA commissioned report *Developing Water Quality Limits for Taranaki Regional Council* (2014), which identified possible limits based on National Objectives Framework's numeric attribute states.
- 2015: State of the environment report 2015 *Taranaki as One* prepared collating and analysing state of the environment monitoring data to identify environmental trends and changes over the past five to 20 years or more and to assess the effectiveness of the Council's management responses.
- 2015: Draft Plan released for comment and discussion on 1 May 2015. Subsequent to the draft Plan consultative process, Council undertook to undertake further investigations and consultation prior to publicly notifying a Proposed Plan. Work on the development of the Proposed Plan and accompanying section 32 report continues.
- 2015: Council's freshwater physicochemical monitoring programme extended to cover all four freshwater management units for the Taranaki region (as identified in the draft Plan). These being: water bodies of outstanding value; the ring plain, the northern and southern coastal terraces and the eastern hill country.[1]
- November 2015: The first *Implementation Programme for the National Policy Statement for Freshwater Management: Taranaki Regional Council 2015* was prepared and publicly notified. The preparation and reporting of this document is required when a council cannot fully implement the NPS-FM by 31 December 2015 (all regional councils excluding Otago and West Coast have subsequently been required to prepare these programmes).

Since the adoption of 2015 PIP, Council has continued to implement additional key elements of the NPS-FM in the Taranaki region while also undertaking further investigations and engagement associated with the ongoing review of the freshwater and soil plans. These include:

- October 2016: Council implemented the Dissolved Oxygen Monitoring Programme to meet the requirements of the NPS-FM that councils report on the characteristics of freshwater. Dissolved oxygen is one of six characteristics identified by the NPS-FM as it is useful as an indicator for ecosystem health within waterways. The programme involves the instalment of permanent monitoring stations across all four freshwater management units in the region.
- January 2017: Interim review, involving targeted consultation, on the efficiency and effectiveness of the *Regional Policy Statement for Taranaki*. Interim review confirmed the efficiency and effectiveness of Regional Policy Statement provisions, including progress on the achievement of freshwater outcomes but highlighted changes factors, including impact of changes to the legislative and planning framework for freshwater on existing regional planning instruments .
- March 2017: the *Taranaki Regional Council Requirements for Good Farm Management* was prepared and released. The document sets out directions on freshwater and land management activities that captures community and NPS-FM expectations relating to the management of farm dairy effluent, riparian management, wetland protection, forestry, taking gravel, silage pits, stream crossings, dams, culverts, domestic wastewater, spraying, fertiliser application, vegetation clearance and stream modification. The requirements document is based on current and future policy and seeks to ensure best farming practices and environmental improvement while the Council continues reviewing its freshwater and soil plans.

[1] *This gives effect to Policy CB1(b) of the NPS-FM and the requirement for Council to identify a site or sites at which monitoring will be undertaken that are representative for each freshwater management unit. Two new representative sites were included in the Waitara River and Whenuakura River within the eastern hill country.*

- April 2017: The Council adopted a riparian management plan compliance certificate regime setting out a regime and standards for farmers in relation to meeting proposed stock exclusion and riparian management requirements of the Council in the ring plain, coastal terrace and outstanding freshwater management units.
- July 2017: The Council developed and initiated its monthly periphyton monitoring programme at 12 sites around the region necessary to give effect to NPS-FM monitoring requirements.
- December 2017: Council commissioned NIWA to investigate instream health and water quality arising from riparian management activities in Taranaki waterways. The report *Analysis of Stream Responses to Riparian Management on the Taranaki Ring Plain*, which was published in March 2018, confirmed the effectiveness of riparian management as a mitigation tool to ensure Taranaki's generally high water quality can be maintained and enhanced into the future (thereby giving effect to water quality objectives and policies set out in Clause (a) of the NPS-FM. The study found that the Council's long-running non-regulatory riparian management programme has led to improved ecological health in the region's waterways, as well as reduced *E.coli levels*.
- March 2018: Council set and published *Draft Regional Targets for Swimmable Rivers and Lakes for the Taranaki Region*. These targets give effect to Policy A6(a) of the NPS-FM. The Draft Targets confirm Council's concerns that dairying regions, regardless of interventions adopted, will not be able to meet Government targets for swimmability in rivers, which apply all year around, even when there is no swimming due to low temperatures and high unsafe stream flows.
- March 2018: Council adopted the internal report *Incorporating Mātauranga Māori into Council Monitoring of Fresh Water*. The report provides a brief overview of the successes and challenges that other regional councils have experienced while incorporating Mātauranga Māori into their freshwater planning and monitoring, identifies some frameworks and monitoring tools currently being used around the country, as well as indicators from a Māori perspective and a western science view. The report further presents some recommendations for the Council to incorporate Mātauranga Māori into its freshwater planning and monitoring framework as required by Policy CB1(v) of the NPS-FM. The internal report is being used to inform Council's consultation and discussion with iwi in what is a complex area. The regional council sector is also preparing a stocktake report on Mātauranga Māori monitoring.
- June 2018: Council updated its freshwater quantity accounting system. The spreadsheet based system sets out, for all Taranaki rivers and streams with consented takes, the amount of allocable water, minimum flows and the remaining available water for consumptive uses. The freshwater quantity accounting system gives effect to Policy CC1(a) of the NPS-FM.
- July 2018: the Council adopted the report titled: *Review of Minimum Flows and Water Allocation in Taranaki*. This study examines international and national research that has been carried out into the effects of water abstraction and includes methods and principles for setting minimum flows and allocation limits in a revised Freshwater and Land Management Plan. The study is based upon flow data across a sample of Taranaki waterways and provides a range of scenarios for setting minimum flows and allocation limits that would provide various levels of protection addressing fish habitat and the ecological health of rivers and streams.
- November 2018: Workshops and hui with iwi and stakeholders to discuss findings of the report *Review of Minimum Flows and Water Allocation in Taranaki* and discuss future limits for water allocation to be included in a revised Freshwater Plan.

The Taranaki Riparian Management Programme, involving the exclusion of livestock and the replanting of our riparian margins, is transforming the landscape while also maintaining and enhancing freshwater outcomes in the region as sought by the NPS-FM.

3. Progressive NPS-FM implementation

The Council is implementing the NPS-FM using a variety of methods, in particular:

- Amendments to regional policy statement and plans and, in particular, the *Regional Freshwater Plan for Taranaki* and *Regional Soil Plan for Taranaki*.
- Assessment of, and decisions on resource consent applications relating to freshwater resources.
- Non-regulatory and supporting initiatives that sit outside statutory documents and/or RMA consenting processes, e.g. riparian management programmes and monitoring.

The review of its current Freshwater Plan is a comprehensive exercise vital to giving full effect to the NPS-FM. A Proposed Plan is anticipated to be publicly notified by 2020 (or sooner if practicable).

Amending regional policy statement and plans

The Council has commenced a review of its *Regional Freshwater Plan for Taranaki* and *Regional Soil Plan for Taranaki*, which were made operative on 8 October 2001. As part of that review process the Council is seeking to prepare and adopt a *Freshwater and Soil Plan for Taranaki* to give effect to the NPS-FM and to incorporate the National Objectives Framework.

The Plan review can be broadly grouped into four key phases:

First, as part of early engagement in the review of its freshwater and soil plans, Council consulted with iwi and key stakeholders on freshwater management issues and major proposed changes, established a stakeholder focus group, commissioned research, and prepared a suite of technical documents and position papers that amongst other things informed the preparation of a draft Proposed Plan that, amongst other things, sought to give effect to legislative change factors such as NPS-FM.

Second, based upon that early engagement and preliminary work, on 1 May 2015, Council released and consulted on a draft Proposed Plan and sought feedback from tangata whenua and stakeholders. Comments received on the draft Plan highlighted some areas where the Council could usefully take more time to review and gather more information and work through issues with stakeholders in order to avoid or mitigate some of the uncertainties, costs and business risks associated with giving effect to the NPS-FM.

Third, as part of that ongoing plan development, Council is undertaking additional investigations and engagement to refine some of the new concepts and processes introduced by the 2014 and 2017 versions of the NPS-FM into a Proposed Plan, e.g. identification of freshwater management units, their values and attributes, the setting of

water quality and environmental flow limits, and the incorporation of the National Objectives Framework. There has also been an opportunity to take into account and respond to recent and proposed national policy initiatives, including promulgation of the *National Policy Statement for Urban Development Capacity* (2016), amendments to the RMA (2017), amendments to the NPS-FM, including incorporation of Te Mana o te Wai and amendments to NOF provisions, attributes and values (2017), promulgation of the *National Environmental Standard for Plantation Forestry* (2017), and national requirements for councils to set draft and final regional targets for swimmability (2018).

The fourth and final stage, is Council publicly notifying a Proposed Plan pursuant to Schedule 1 of the RMA and undertaking the formal process of public submissions/ further submissions, a hearing (if required), Council decisions, and resolution of any appeals to the Environment Court. Only after all appeals are resolved, and the Plan amended accordingly, can the Council then make the Plan operative.

In addition to the regional plan reviews, Council anticipates that implementation of some NPS-FM provisions will be further addressed as part of the review of the *Regional Policy Statement for Taranaki*. This is due to commence in 2020 but may occur earlier to align with regional plan provisions. [2]

The planning review processes contribute to giving particular effect[3] to the following NPS-FM objectives and policies:

Te Mana o te Wai: Objective AA1, Policy AA1

Freshwater quality: Objective A2, Objective A3, Policy A1, Policy A2, Policy A3, Policy A5, Policy A6

Freshwater quantity: Policy B1, Policy B2, Policy B3, Policy B6

Integrated management: Objective C1, Policy C1

National Objectives Framework: Objective CA1, Policy CA1, Policy CA2, Policy CA3, Policy CA4.

Assessing resource consent applications

Through the current Freshwater Plan and associated resource consenting process, Council continues to assess and make decisions on applications relating to freshwater resources. In doing so, Council is giving effect to most water quality and quantity objectives and policies of the NPS-FM.

In March 2017, the Council prepared and released the document *Taranaki Regional Council Requirements for Good Farm Management*. The document sets out directions on freshwater and land management activities that captures the community's (and NPS-FM) expectations relating to the management of farm dairy effluent, riparian management, wetland protection, forestry, taking gravel. It is being given effect to through the consent process.

When assessing and making decisions on consent applications, Council is seeking to ensure best resource management practices and environmental improvement while it is undertaking its plan reviews. Of particular note are consenting requirements for the diversion of farm dairy effluent onto land where practicable, increased restrictions on small stream modifications or drainage of wetlands in Taranaki, and/or the inclusion of consent conditions promoting freshwater outcomes.

The current Plan and consenting process contributes to giving particular effect to the following NPS-FM objectives and policies:

Freshwater quality: Objective A1, Objective A2, Objective A4, Policy A4, Policy A7

Freshwater quantity: Objective B1, Objective B2, Objective B3, Objective B4, Objective B5, Policy B4, Policy B5, Policy B7, Policy B8

Integrated management: Objective C1, Policy C1, Policy C2

Tangata whenua roles and interests: Objective D1, Policy D1.

[2] As far as is practicable, Council will seek to integrate the Freshwater Plan review into the reviews of its Regional Policy Statement and its other (coastal, soil and air) plans, which are in progress or scheduled to commence shortly.

[3] Recognising that Council likely undertakes to be a plethora of activities that, to varying degrees, gives effect to different parts of the NPS-FM.

Implementing other freshwater programmes

Council also implements a range of non-regulatory and supporting initiatives that, while sitting outside statutory documents and/or the consenting regime of the RMA, nevertheless give effect to various NPS-FM objectives and policies. They include:

- Implementation of extension programmes such as the Taranaki Riparian Programme[4], the Sustainable Hill Country Programme[5], the Wetlands Programme[6] and the Key Native Ecosystems Programme[7].
- General liaison, advice and education with resource users and the wider target to promote behavioural changes and best practice that support the maintenance and enhancement of freshwater quality in the region and the protection of wetlands.
- Tangata whenua participation on Council standing committees relating to resource management.
- Environmental enhancement grant funding and other support and assistance to maintain and enhance biodiversity values, including the protection of wetlands and fish passage.
- Comprehensive state of the environment monitoring activities that, amongst other things, assess and report on freshwater issues and trends in the region. These programmes will need to be amended to give effect to a number of new concepts and requirements set out in the NPS-FM, particularly in association with monitoring the National Objectives Framework and the development and refinement of accounting systems for freshwater quality and quantity.
- Comprehensive compliance monitoring activities for abstractions from and discharges to surface and groundwater that, amongst other things, inform, assess and report on freshwater issues and trends in the region on a collective basis. These programmes can be interrogated to give effect to a number of new concepts and requirements set out in the NPS-FM, particularly in association with monitoring the National Objectives Framework and the development and refinement of accounting systems for freshwater quality and quantity.

In addition to the above, Council has also undertaken additional planning and reporting activities required by the NPS-FM. They include requirements to set regional targets for swimmability in Taranaki, and requirements to review and revise (if necessary) this progressive implementation programme and annually report on its implementation.

Other freshwater programmes contributes to giving particular effect to the following NPS-FM objectives and policies:

Freshwater quality: Objective A1, Objective A2, Policy A6, Policy A7

Monitoring plans: Objective CB1, Policy CB1, Policy CB2, Policy CB3, Policy CB4

Accounting: Objective CC1, Policy CC1, Policy CC2

Tangata whenua: Objective D1, Policy D1

Progressive implementation programme: Policy E1.

[4] *Targeting all intensively farmed land on the ring plain and coastal terraces.*

[5] *Targeting all erosion prone farmland in the eastern hill country.*

[6] *Targeting the active and passive protection of 77 scheduled regionally significant wetlands in Taranaki.*

[7] *Targeting the active and passive protection of all terrestrial sites and places in Taranaki with significant indigenous biodiversity values, including wetlands.*

Key milestones and activities and indicative timeframe for staged implementation of the NPS-FM

The Table below sets out the key activities and milestones and indicative timeframe for the staged implementation of the NPS-FM.

Financial year	Regional plan review	Freshwater consenting process	Other freshwater initiatives[8]
2018 – 2019	Continue review of regional freshwater and soil plans *(Policy A1, B1, B2, B3, B4, B6, C1, CA1, CA2, CA3 and CA4)* and, in particular, undertake the following: • in November 2018, consult with iwi/hapū to inform development of a Mātauranga Māori monitoring plan (and revised Freshwater Plan provision) that establishes methods for monitoring Mātauranga Māori in freshwater management units *(Policy CB1(v))* • in association with the above, consult with iw/hapū on incorporating Te Mana o Te Wai to into a Proposed Plan *(Policy AA1)* • in November/December 2018, undertake environmental flow limits workshops with consultants, iwi/hapū, water users and other stakeholders to determine appropriate minimum flow and allocation limits for incorporating into a Proposed Plan (*Policy B1, B2, C1 and CA2)* • in November/December 2018, undertake further consultation with iwi/hapū on the consideration of iwi values, including the identification of cultural sites of significance, in a Proposed Freshwater and Land Management Plan (*Policy AA1 and CA2)* • in December 2018, finalise regional targets for swimmable rivers and lakes *(Policy A6)*	Assess and make decisions on consent applications relating to freshwater resources and, in particular: • implement Transitional Policies A4 and B7 of the NPS-FM • assess 16 farm dairy effluent consent renewals in the Heimama, Hihiwera, Oaonui, Oeo, Okaweu, Punehu, Rawa, Wahamoko, Waiaua 2, Waikaretu and Waitaweta catchments to give effect to water quality policies of the NPS-FM *(Policy A2, A3 and A7)* • generally require land-based disposal of dairy effluent through consent renewals *(Policy A2, A3 and A7)* • assess other consent applications to discharge to land or water, to take water, or mange disturbance to the beds of rivers and lakes *(Policy A2, A3, A7 and B5)*.	Implement other (non-regional plan development / consenting) freshwater initiatives and, in particular: • review and report on implementation of the 2015 version of the PIP *(Policy E1)* • prepare and publicly notify a new PIP by 31 December 2018 *(Policy E1)* • complete work on a freshwater quality accounting system by defining and identifying relevant sources of contaminants to be accounted for in each FMU *(Policy CC1 and CC2)* • update and implement the Council's monitoring plan *(Policy CB1, CB2, CB3 and CB4)* and freshwater quality and quantity accounting systems *(Policy CC1 and CC2)* to implement 2017 amendments to the NPS-FM • continue monitoring *E. coli* at primary contact sites *(Policy A5 and Appendix 5)* • continue monitoring periphyton to inform a report following the regulatory minimum of at least three years of continuous monitoring • continue preparation of riparian plans on all intensively farmed land • liaise with 2,789 riparian plan holders to ensure that, by the end of the financial year 86% of waterways traversing intensively farmed land

[8] *Note: Subject to public confirmation through long term planning processes.*

Financial year	Regional plan review	Freshwater consenting process	Other freshwater initiatives[8]
	• identify and confirm primary contact sites for inclusion in a Proposed Plan *(Policy A5 and Appendix 5)* • continue work on the Section 32 RMA costs and benefits assessment for the Proposed Plan.		are fenced and that 72% of riparian margins are appropriately vegetated • ongoing implementation of soil conservation programme to reduce sediment loadings in eastern hill country rivers
2019 – 2020	Continue development of *Proposed Freshwater and Soil Plan for Taranaki* and, in particular develop draft Plan provisions that: • take into account and, as far as is practicable, incorporate new Government policy directions, including proposed RMA amendments, amendments to the NPS-FM, and new national policy statements (e.g. indigenous biodiversity), national environmental standards and national planning standards • incorporate freshwater management units for rivers, lakes and aquifers *(Policy CA1)* • incorporate national objectives framework *(Policy A1, A2, A3, CA1, CA2, CA3 and CA4)* • set regional freshwater quality limits and objectives *(Policy A5)* • set regional environmental flow (minimum flows and allocation) limits *(Policy B1 and B2)* • avoid over-allocation *(Policy B6)* • incorporate Te Mana o te Wai *(Policy AA1)*, including identification of sites of significance to Māori. Complete Section 32 RMA costs and benefits assessment for the Proposed Plan.	Assess and make decisions on applications relating to freshwater resources and, in particular: • implement Transitional Policies A4 and B7 of the NPS-FM • assess 107 farm dairy effluent consent renewals in the Hangatahua, Kahihi, Kapoaiaia, Katikara, Maitahi, Matanehunehu, Moutoti, Okahu, Oneroa, Otahi, Otuwhenua, Patea, Pitone, Pungaereere, Tangihapu, Teikaparua (Warea), Timaru, unnamed catchments 42, 49, 54, 57 and 58, Waoaua, Waihi, Waimoku, Waiongana, Wairongomai, Waitaha, Waitearata, Waitekaure, Waitotoroa, Waiweranui, Werekino, Whanganui and Whenuariki catchments to give effect to water quality policies of the NPS-FM *(Policy A2, A3 and A7)* • generally require land-based disposal of dairy effluent through consent renewals *(Policy A2, A3, A7)* • assess other consent applications to discharge to land or water, to take water, or manage disturbance to the beds of rivers and lakes *(Policy A2, A3, A7, B5)*.	Implementation of other (non-regional planning and consenting) programmes and, in particular: • report on the implementation of the PIP 2018 *(Policy E1)* • update and implement Council's monitoring plan *(Policy CB1, CB2, CB3 and CB4)* and freshwater quality and quantity accounting systems *(Policy CC1 and CC2)* to implement 2018 amendments to the NPS-FM* • commence development of a Mātauranga Māori monitoring programme *(Policy CB1(v))* • commence development of a deposited sediment monitoring programme to give effect to proposed amendments to the NPSFM *(Appendix 2)* • continue monitoring *E. coli* at primary contact sites *(Policy A5 and Appendix 5)* • continue monitoring periphyton to inform a report following the regulatory minimum of at least three years of continuous monitoring • continue preparation of riparian plans on all intensively farmed land • liaise with 2,889 riparian plan holders to ensure that, by the end of the financial year, 87% of waterways traversing intensively farmed land are fenced and that 73% of riparian margins are appropriately vegetated • ongoing implementation of soil conservation programme to reduce sediment loadings in eastern hill country rivers.

11

Financial year	Regional plan review	Freshwater consenting process	Other freshwater initiatives[8]
2020/2021	Notify a *Proposed Freshwater and Land Management Plan for Taranaki* under Schedule 1 of the RMA by December 2020. Continue Schedule 1 RMA process for *Proposed Freshwater and Land Management Plan for Taranaki*. Continue development of combined Regional Policy Statement and resource management plans (i.e. freshwater, land, air and coast) (Policy C1, C2).	Assess and make decisions on applications relating to freshwater resources and, in particular: • implement Transitional Policies A4 and B7 of the NPS-FM • assess 73 farm dairy effluent consent renewals in the Huatoki, Oakura, Oaonui, Okaweu, Otahi, Patea, Tapuae, Te Henui, Waiongana, Waiwhakaiho, Wairere, Waitara and Waiwhakaiho catchments to give effect to water quality policies of the NPS-FM (Policy A2, A3, A7) • generally require land-based disposal of dairy effluent through consent renewals (Policy A2, A3, A7) • assess other consent applications to discharge to land or water, to take water, or mange disturbance to the beds of rivers and lakes (Policy A2, A3, A7, B5).	Implementation of other (non-regional planning and consenting) programmes include: • report on the implementation of the Progressive Implementation Programme 2018 (Policy E1) • prepare and publish five-yearly State of the Environment report including updated freshwater data (Policy CB4) • update and implement Council's monitoring plan (Policies CB1, CB2, CB3 and CB4) and freshwater quality and quantity accounting systems (Policies CC1 and CC2) • develop measures to give effect to the requirements for incorporation of Mātauranga Māori and health of indigenous flora/fauna into monitoring plans • continue monitoring *E. coli* at primary contact sites (Policy A5 and Appendix 5) • continue monitoring periphyton to inform a report following the regulatory minimum of at least three years of continuous monitoring • continue preparation of riparian plans on all intensively farmed land • liaise with riparian plan holders to ensure that, by the end of the financial year, 100% of waterways traversing intensively farmed land are appropriately fenced and that 90% of riparian margins are appropriately vegetated** • ongoing implementation of soil conservation programme to reduce sediment loadings in eastern hill country rivers.
2021/2022	Full implementation of the NPS-FM (subject to public process outcomes)		

* Completion of that task will depend upon timing of promulgation of the amended NPS-FM and other changes or amendments in national directions for freshwater management.

** As per the targets in the Long Term Plan, which is for 100% of streams with riparian plans will be protected by fencing and 90% protected by vegetation where recommended.

4. Monitoring and review

In accordance with Policy E1(e) of the NPS-FM, the Council will review and annually report on the Programme's implementation for the preceding financial year.

If, as a result of the annual reporting of the Implementation Programme, the programme is not on schedule in accordance with the indicative timeline overleaf, the programme will be reviewed along with financial and resourcing requirements as part of the next Annual Plan or Long Term Plan process.

Electric fishing, part of the Council's state of the environment monitoring that has recently been expanded to include the health and abundance of native fisheries

14

Progressive implementation programme for the National Policy Statement for Freshwater Management

The Taranaki Regional Council (the Council) is required under the National Policy Statement for Freshwater Management 2014 (NPSFM) to publicly notify a programme of time limited stages for implementing the NPSFM, if satisfied that it is impracticable to fully implement it by 31 December 2015.

To achieve all the outcomes sought by the NPSFM, the Council considered that the NPSFM requires development of a number of new concepts and processes, including identifying freshwater management units and the inclusion of the national objectives framework. This requires time for further information gathering, research, investigations, engagement and consultation and then incorporation into Resource Management Act 1991 planning documents. The planning documents will go through the full Resource Management Act 1991 plan making process.

The Council is satisfied that it is impracticable to fully implement the NPSFM by 31 December 2015, and has therefore adopted a staged programme to fully implement the NPSFM by 31 December 2025 or earlier if circumstances permit. The Implementation Programme sets out the key phases and activities to be undertaken to implement the NPSFM and has been reviewed to ensure its ongoing relevance.

The Implementation Programme can be viewed online at www.trc.govt.nz, or at the Taranaki Regional Council's offices at 47 Cloten Road, Stratford. A printed version of the Implementation Programme can be obtained on request – contact Taranaki Regional Council, Private Bag 713, Stratford, phone 06 765-7127 or email info@trc.govt.nz.

B G Chamberlain

Chief Executive

Taranaki Regional Council

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: **Groundwater Quantity - State of the Environment Monitoring Report 2015-2017**

Approved by: G K Bedford, Director – Environment Quality

B G Chamberlain, Chief Executive

Document: 2145844

Purpose

The purpose of this memorandum is to introduce a biennial report entitled *Groundwater Quantity - State of the Environment Monitoring Report 2015-2017,* and to provide an assessment of its content and recommendations. There will be a presentation during today's meeting.

The Executive Summary of the report is attached to this memorandum for Members' information. The full report is available on request and via the Council's website.

Executive summary

In order to ascertain the successful adoption and application or otherwise of the Council's policies and methods of implementation, the Council conducts 'state of the environment' (SEM) monitoring to obtain and report up to date robust information for parameters that characterise the region's environment and resources.

The focus of this SEM report is regional groundwater quantity. The report incorporates an assessment of the volume of groundwater currently allocated for abstraction, which is compared against the estimated sustainable yields from the region's predominant aquifers. Water level data collected from a 15 site regional monitoring network is also analysed to assess the range of groundwater level fluctuation across aquifers and the major drivers behind observed fluctuations. An analysis of the current state of groundwater levels, and trends in water level change over time, is also presented.

The volume of groundwater allocated for abstraction across the region remains low and the demand for groundwater has remained relatively static over the last decade. As of 30 June 2017, there were only 61 current consents authorising the taking of groundwater. It is not foreseen that there will be any increases in groundwater demand in the short to medium-term that would be sufficient to place groundwater resources under any significant allocation pressure.

Measurements of groundwater levels across the region's aquifers can be interrogated to determine both state and trends in groundwater quantity. The data collected also enables an assessment of groundwater level responses to both natural and human induced drivers of water level change. Data records are sufficient at 12 of the 15 sites monitored to enable a robust analysis of trends, which has been conducted according to nationally recognised methodologies.

As would be expected, monitored groundwater sites display fluctuations in water level as a result of seasonal variations in rainfall recharge. The observed magnitude of these seasonal changes varies considerably by site, ranging from a few millimetres up to several metres. The magnitude of observed changes is influenced by rainfall patterns, bore depth, aquifer type (confined or unconfined) and hydraulic properties, the overlying land cover, and proximity to a stable surface water boundary or groundwater discharge area (e.g. river or sea).

Data collected over the last two years of monitoring at each site (2015-2017) has been assessed to determine the current state of groundwater levels across monitored aquifers. The assessment shows that current water levels do not differ significantly from historical long-term averages at monitored sites.

The results of the trend analysis show that there has been no meaningful change in water level over time at 10 of 12 sites where trend analysis was possible. The remaining 2 sites have experienced slight declines in water levels over the course their data records. The slightly declining trend in water levels observed at both sites appear to be the result of localised abstraction pressures.

The results of the analyses undertaken to produce this report indicate that, overall, there is very limited allocation pressure on groundwater resources across the region and it's not anticipated that this will change significantly in the short to medium-term. Analysis of groundwater level data has found isolated impacts of localised abstractions impacting on water levels at specific sites, but overall, groundwater levels remain stable at the majority of monitored locations.

The results of the analysis undertaken in preparing this report show that the Council's policies related to groundwater abstraction and usage have been successful in achieving sustainable management of the region's groundwater resource.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum *Groundwater Quantity State of the Environment Monitoring Report 2015-2017* that presents the findings of a report outlining the state of and trends in measures directly influencing groundwater quantity across the region
2. receives the report *Groundwater Quantity State of the Environment Monitoring Report 2015-2017 Technical Report 2017-110*
3. notes the findings of the analysis of state and trend data from the SEM groundwater programme
4. adopts the specific recommendations therein.

Background

The Council's *Regional Fresh Water Plan for Taranaki* (2001) contains an objective and policies for groundwater quantity and levels as follows:-

Objective

OBJ 6.4.1 To promote the sustainable management of groundwater resources by avoiding, remedying or mitigating any adverse effects of the taking and use of groundwater.

Policies

POL 6.4.1 The taking of water from shallow groundwater within close proximity of a surface water body may affect water levels and flows in the surface water body and accordingly any consideration of such an abstraction will take into account:

(a) the contribution of groundwater to surface flows;

(b) the effects of any abstraction on the surface water body at the location in question.

POL 6.4.2 The taking of groundwater will be limited to the sustainable yield of the aquifer to ensure that groundwater will be available for present and future generations. When assessing resource consents for the taking of groundwater, the Taranaki Regional Council will take into account the need to:

(a) maintain a sustainable yield of the aquifer;

(b) avoid the inflow of poor quality water into aquifers;

(c) avoid saltwater intrusion into aquifers;

(d) avoid significant interference with existing lawfully established and sustainable water uses.

The RFWP then discusses the objective and policies as follow:-

Policy 6.4.2 states that the groundwater resources of Taranaki will be managed on a sustainable yield basis. The concept of sustainable yield applies to both the quantity and quality aspects of groundwater. With respect to quantity, sustainable yield means ensuring that the abstraction rate does not cause long-term depletion of the groundwater resource…. The concept of sustainable yield is implemented through the standards, terms and conditions contained within regional rules

Through the procedures set out in the RFWP, the Council commits to:-

The monitoring of the effectiveness of the Plan will be carried out in conjunction with monitoring of the Regional Policy Statement for Taranaki and other regional plans. The following methods will be used to monitor fresh water and the effectiveness of the Plan.
…..
3. Continuation of the groundwater monitoring programme, including quality, nitrate and water level monitoring.

Discussion

The SEM Groundwater Quantity Programme has three primary objectives:

- To assess the current state of groundwater allocation across the region's major aquifer systems;
- To provide information on the current range of groundwater levels at a selected number of sites across the region's major aquifer systems;
- Identify spatial and temporal trends in water level arising as a result of natural and/or anthropogenic influences, including allocation pressures.

This information can then be used to measure how well management practices, policies and rules are working, and whether environmental outcomes are being achieved.

The groundwater quantity monitoring programme is an amalgamation of two SEM groundwater monitoring programmes that were previously delivered separately by the Council, namely the pressures on groundwater resources and groundwater levels monitoring programmes. The two programmes have been amalgamated to provide a more integrated assessment of groundwater allocation pressures and the potentially observable impacts of groundwater takes (reduced groundwater levels).

The revised programme is comprised of two primary components. These include the desk based assessment of groundwater allocation volumes, based on a review of consent information and records held within the Council's water accounting system, and the operation and assessment of data from a regional groundwater level monitoring network.

This is the first report prepared under the revised programme structure.

The volume of groundwater allocated for abstraction across the Taranaki region remains low, with only 61 consents authorising the taking of groundwater current as of 30 June 2017. The demand for groundwater has been relatively static over the last decade, with total current groundwater allocation (40,422 m^3/d) 25% higher than allocated in 2013 (32,343 m^3/d), but 8% less than was allocated in 2008 (44,042 m^3/d) (TRC, 2015). The majority of the increases in allocated groundwater volumes over the more recent period (2013-2017) are associated with consents issued for irrigation (including both recreational and agriculture use) and manufacturing purposes.

The highest level of allocation is currently seen in the Whenuakura aquifer, where a combined total of 23% of estimated sustainable yield is are allocated across areas of the aquifer located within freshwater management unit (FMU) B and FMU-C. The Matemateaonga aquifer has approximately 7% allocated across FMU-A and FMU-B. All other aquifers have insignificant volumes of water allocated (≤1% of estimated sustainable yield).

The relatively low demand placed on groundwater resources for abstractive purposes across Taranaki is likely due to several factors. Firstly, most areas of Taranaki receive regular and plentiful rainfall, with a steep rainfall gradient inward from coastal areas. The high rainfall experienced in Taranaki also means that, outside of coastal areas, soil moisture deficits are generally low and when there is a deficit, it is generally short lived. As a result Taranaki has not seen the rapid increase in water demand for pasture irrigation, as has been seen elsewhere in New Zealand. The rainfall characteristics and topography within Taranaki also means there is an abundance of surface water systems, which means rivers and streams are generally accessible when water supply is needed. Where available, surface water supplies are typically preferred to groundwater sources, given they can be obtained at a much lower capital cost. The low yields from Taranaki aquifers often mean that multiple bores are required to supply high demand uses, making the use of groundwater uneconomic. Surface water systems are generally able to sustain the majority of current water demand in Taranaki, although several catchments are fully allocated.

Notwithstanding the above, there is potential for growth in groundwater demand in the future. Any significant growth would likely be driven by a shift in current land use, development of new land uses or industrial activities that require greater higher water inputs than those activities that predominate currently. If more surface water systems across the region reach their allocation limit in coming years, any future increases in regional water demand may necessitate the need for more groundwater sourced water supply. Climate change also has the potential to influence future rainfall patterns in Taranaki and, as a result, the volume of water recharging its groundwater systems. This could impact both the regional water demand and the volume of groundwater available for allocation. It is currently projected however that Taranaki will see little change in its annual rainfall volumes in the short to medium-term, and potentially a slight increase in rainfall by 2090, particularly over winter months, when the majority of groundwater recharge occurs. If current predictions are realised, it's unlikely that the volume of groundwater available for allocation across the region will change significantly into the future.

Currently, there are 15 sites monitored as part of the programme, expanded from 9 sites when this programme was last report to this committee. The network spans six of the region's major aquifer systems, which cover areas of the region with the most signifcant levels of abstraction pressure. The monitoring network includes a mixture of wells and bores which tap both confined and unconfined aquifers. Data is collected elctronically across all sites and this data is verified with manual level measurements. The length of data record across sites varies from 2 to 23 years. Sites have been classified as having long-term records where data has been collected for a minimum of 8 years, while short-term sites have a minimum of 5 year's data available.

The data collected illustrates the natural variability in water levels across the region's aquifers. Monitoring of water levels at sites intersecting unconfined aquifers, primarily in the Taranaki volcanics and marine terrace hydrogeological units, show strong response to seasonal rainfall patterns. This generally results in water levels rising during periods of the year with higher rainfall (winter, spring) and falling during drier periods (summer, autumn). The magnitude of seasonal fluctuations and the speed of level response to rainfall is also influenced by factors other than aquifer confinement though: these include the permeability and storage characteristics of strata in which the groundwater resides, its water storage capacity, the depth to the water table and the overlying land cover and proximity to a stable surface water boundary.

The impact of seasonal fluctuations in rainfall recharge volumes on groundwater levels are more subdued in confined aquifers, which are disconnected from direct rainfall recharge by overlying low permeability strata. As a result, the magnitudes of level fluctuations are typically much less than seen in shallow unconfined groundwater systems where the water table is close to the surface and receiving direct rainfall recharge.

The water level data from some specific sites also illustrate the influence of water abstraction on groundwater systems, whereby drawdown of water levels occurs as a result of pumping, with a corresponding rebound in water level when pumping stops.

Data collected over the last two years of monitoring at each site (2015-2017) has been assessed to determine the current state of groundwater levels across monitored aquifers. The assessment shows that current water levels do not differ significantly from historical long-term averages at monitored sites. The analysis also illustrated similarities in spatial and temporal responses to rainfall across some sites.

Trend analysis was carried out on the data collected at all sites with a minimum of five years' data. This data was used to assess short-term (recent) trends in groundwater level change. Where a site had a minimum of eight years of available data, an analysis of the full data record from that site was also conducted to assess longer-term trends in groundwater level. The results of the trend analysis were assessed against a set criteria of statistical significance (P-value) and trend magnitude (RSKSE) to define trend classification.
The results of the trend analysis show that at the vast majority of sites, there has been no meaningful change in water level over time. The exceptions to this were site GND0708 (Patea – Whenuakura aquifer), which was found to have experienced a slightly declining trend in water level over both its long-term data record and the most recent five year period, and one other site, GND2252 (Waverly – Whenuakura aquifer), which was found to have experienced a slightly declining trend in water level over its recent data record. In addition to these sites, there were others where statistically significant rising (4 sites) and declining (2 sites) trends in water level were identified. None of these trends were however deemed environmentally meaningful, given the extremely low rate of annual change (+/- <0.1%).

The slightly declining trend in water levels observed at site GND2252 is likely due to the ongoing abstraction of water from the lower aquifer (Whenuakura Formation) for municipal supply purposes. Over the same time period, the majority of water taken to supply the township of Patea was taken from the lower aquifer. Analysis of water level data from site GND2253, screened across the upper aquifer at the same location, did not show any corresponding decline in water level. This indicates the decline in water levels is isolated to the lower aquifer, and that the decline has not been sufficient to induce any significant leakage from the overlying upper aquifer.

Localised abstraction pressure is also the likely cause of observed declines in water level at site GND0708, although the specific location of the abstraction(s) likely impacting on water levels are not clear. The Council has records of five other known bores that take water from the Whenuakura aquifer within a 3.5 km radius of GND0708, however there are no current consents to take groundwater from any of these bores. In order to be complying with the permitted water take rule set out in RFWP, the maximum volume of water being taken from these bores should not be exceeding 50 m^3/day. Further investigation is required to assess whether the permitted takes limit is being complied with at these sites, or whether other unregistered bores (and associated water takes) exist in the area.

The slightly declining trend in water levels observed at both sites GND0708 site GND2252 appear to be the result of localised abstraction pressures. While both sites do intersect the Whenuakura aquifer, they are located a significant distance apart from each other and other monitoring sites in the same aquifer do not show a similar decline. It is therefore concluded that the observed trends are not indicative of any widespread reduction in groundwater levels across the aquifer.

In summary, analysis of groundwater level data has found isolated impacts of localised abstractions impacting on water levels at specific sites, but overall, groundwater levels remain stable at the majority of monitored locations. The results of this analysis undertaken in preparing this report show that the Council's policies related to groundwater abstraction and usage have been successful in achieving sustainable management of the region's groundwater resource.

The report includes recommendations aimed at improving the spatial coverage of groundwater level monitoring sites across the region, the quality of data being collected, and the reporting format and frequency, in accordance with these requirements and recommendations. Two or three additional sites are currently being considered by Council officers.

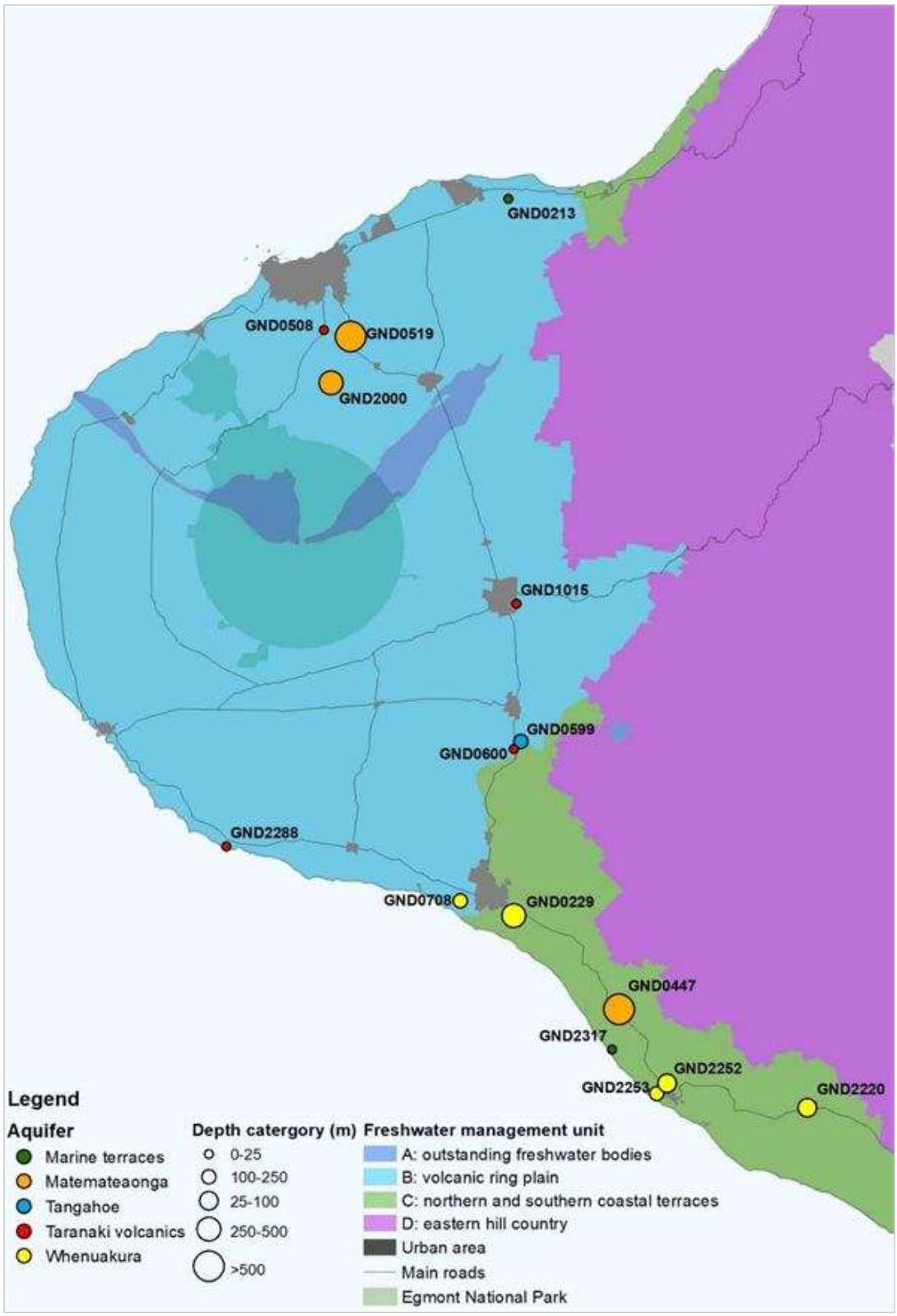

Figure 1 Current monitoring site locations and aquifer unit intercepted

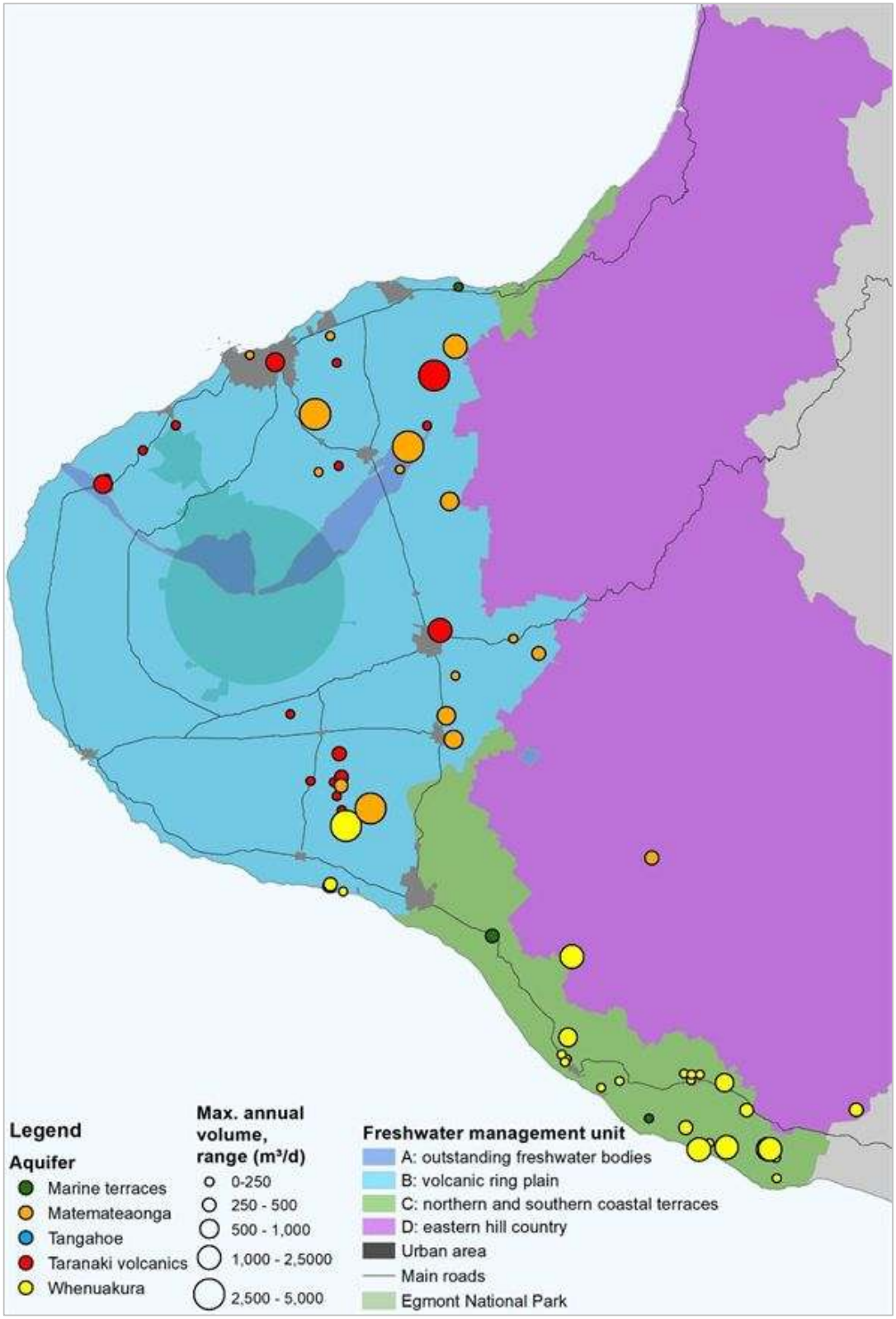

Figure 2 Locations of consented groundwater abstractions as of 30 June 2017

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Attachments

Document 2028940: Groundwater Quantity State of the Environment Monitoring Report 2015-2017 Technical Report 2017-110 (Executive summary and recommendations).

Executive summary

Regional councils have responsibilities under the Resource Management Act (1991) to monitor the state of the environment within their region. The Taranaki Regional Council (the Council) monitors the state and trends across the region's groundwater resource using a number of measures, including chemical and microbial water quality, groundwater levels and usage.

The focus of this report is regional groundwater quantity. The report incorporates an assessment of the volume of groundwater currently allocated for abstraction, which is compared against the estimated sustainable yields from the region's predominant aquifers. Water level data collected from a 15 site regional monitoring network is also analysed to assess the range of groundwater level fluctuation across aquifers and the major drivers behind observed fluctuations. An analysis of current state and trends in water level change over time is also presented.

The volume of groundwater allocated for abstraction across the region remains low and the demand for groundwater has remained relatively static over the last decade. As of 30 June 2017, there were only 61 current consents authorising the taking of groundwater. The highest level of allocation is currently seen in the Whenuakura aquifer, where a combined total of 23% of estimated sustainable yield is allocated across areas of the aquifer located within freshwater management unit (FMU) B and FMU-C. The Matemateaonga aquifer has approximately 7% allocated across FMU-A and FMU-B. All other aquifers have insignificant volumes of water allocated (≤1 % of estimated sustainable yield). It is not foreseen that there will be any increases in groundwater demand in the short to medium-term that would be sufficient to place groundwater resources under any significant allocation pressure.

As would be expected, monitored groundwater sites display fluctuations in water level as a result of seasonal variations in rainfall recharge. The observed magnitude of these seasonal changes varies considerably by site, ranging from a few millimetres up to several metres. The magnitude of observed changes is influenced by rainfall patterns, bore depth, aquifer type (confined or unconfined) and hydraulic properties, the overlying land cover, and proximity to a stable surface water boundary or groundwater discharge area (e.g. river or sea).
Data collected over the last two years of monitoring at each site (2015-2017) has been assessed to determine the current state of groundwater levels across monitored aquifers. The assessment shows that current water levels do not differ significantly from historical long-term averages at monitored sites. The analysis also illustrated similarities in spatial and temporal responses to rainfall across some sites.

Water level data collected at each monitoring location has been analysed for trends. This included analysis of long term trends, where a site had a minimum of eight years of data available, and more recent trends using data from the last five year period (2012-2017).
The results of the trend analysis show that at the vast majority of sites, there has been no meaningful change in water level over time. The exceptions to this were site GND0708 (Patea – Whenuakura aquifer), which was found to have experienced a slightly declining trend in water level over both its long-term data record and the most recent five year period. One other site, GND2252 (Waverly – Whenuakura aquifer), was found to have experienced a slightly declining trend in water level over its recent data record. In addition to these sites, there were others where statistically significant rising (4 sites) and declining (2 sites) trends in water level were identified. None of these trends were however deemed environmentally meaningful, given the extremely low rate of annual change (+/- <0.1%).

The slightly declining trend in water levels observed at both sites GND0708 and GND2252 appear to be the result of localised abstraction pressures. While both sites do intersect the Whenuakura aquifer, they are located a significant distance apart from each other and other monitoring sites in the same aquifer do not show a similar decline. It is therefore concluded that the observed trends are not indicative of any widespread reduction in groundwater levels across the aquifer.

The results of the analyses undertaken to produce this report indicate that, overall, there is very limited allocation pressure on groundwater resources across the region and is not anticipated that this will change significantly in the short to medium-term. Analysis of groundwater level data has found isolated impacts of localised abstractions impacting on water levels at specific sites, but overall, groundwater levels remain stable at the majority of monitored locations. The results of the analysis undertaken in preparing this report show that the Council's policies related to groundwater abstraction and usage have been successful in achieving sustainable management of the region's groundwater resource.

Recommendations

It is recommended:

1. THAT any of the planned responses outlined in Section 7.0 be implemented as proposed, where not already completed; and

2. THAT the Council's regional groundwater level monitoring network be extended as further suitable sites are identified. Sites intersecting aquifers where current monitoring coverage is limited should be prioritised, as should sites to the west of Mount Taranaki.

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: ***Essential Freshwater:*** **Latest announcements on the Government's freshwater agenda**

Approved by: A D McLay, Director – Resource Management

B G Chamberlain, Chief Executive

Document: 2139444

Purpose

The purpose of this memorandum is to introduce the latest announcements on the Government's freshwater agenda and the potential implications for the Council.

The memorandum has been presented to both the Policy and Planning Committee and the Consents and Regulatory Committee.

Executive summary

On the 8 October 2018, the Government announced its agenda for action on freshwater over the next two years.

The proposals are outlined in the main document *Essential Freshwater: Healthy Water, Fairly Allocated* and in a companion paper *Shared Interests in Freshwater: A New Approach to the Crown/Māori Relationship for Freshwater.* A suite of new national policy and rules are proposed to be put in place by 2020 with opportunities for public consultation before final decisions are made.

The work programme covers six workstreams: at risk catchments; National Policy Statement for Freshwater Management amendments; a new National Environmental Standard for Freshwater Management; Resource Management Act amendments; allocation of freshwater resources and future policy framework development. A network of advisory groups is proposed to test proposals and provide input on options.

At this stage, the proposals lack detail as to what specific changes are likely. No detail has been provided on the substance of changes to the NPS-FM or the likely scale of new regulation under the NES–FM, although some examples are given as to where amendments could be made or the types of activities that may be considered for further regulation. A 'one-size fits all' approach will not work when proposing new regulations and the Council

will need to consider the new rules carefully to ensure they do not impose unnecessary costs on the Taranaki community.

Amendments to the RMA are proposed to change the plan preparation process and to enable regional councils to review consents to enable water quality and quantity limits set in the Freshwater NPS to be implemented more quickly. The amendments will also strengthen enforcement tools.

Work will continue on the Council's *Draft Freshwater and Land Management Plan* with new changes imposed by central government incorporated as part of the review process.

The focus on at-risk catchments is supported in principle but no decisions have yet been made on where they are and what makes them at risk.

The *Shared Interests in Freshwater* document sets out what the Government wishes to explore with iwi in relation to freshwater.

Overall, the package contains a number of positive goals and intentions but these are of a general nature and the detail, once developed over the next 12 to 18 months, will need careful analysis.

Liaison with Ministry for the Environment staff reveals a lot of the changes will arrive in April 2019, which may test the capacity of the Council's small planning team.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum *Essential Freshwater: Latest announcements on the Government's freshwater agenda*
2. notes that the Government's work programme includes at risk catchments; amendments to the National Policy Statement for Freshwater Management; a new National Environmental Standard for Freshwater Management; amendments to the Resource Management Act; allocation of freshwater resources; and future policy framework development
3. notes that proposals for change to freshwater management in New Zealand will be consulted on over the next two years with special advisory groups set up for the purpose, and the general public, prior to final decisions being made
4. notes that the Council will be involved in these processes to ensure the proposals are appropriate for Taranaki.

Background

On the 8 October 2018, the Government announced its agenda for action on freshwater over the next two years.

The proposals are outlined in the main document *Essential Freshwater: Healthy Water, Fairly Allocated* and in a companion paper *Shared Interests in Freshwater: A New Approach to the*

Crown/Māori Relationship for Freshwater, where the Government outlines its approach to recognising and acting on the shared interests of the Crown and Māori in freshwater.

Both documents can be found on the Ministry for the Environment's website at http://www.mfe.govt.nz/fresh-water/essential-freshwater-agenda

A media release can be found at https://www.beehive.govt.nz/release/taking-action-improve-water-quality

Essentially, what is being proposed is a suite of new national policy and rules to be put in place by 2020 to halt further degradation and restore New Zealand's freshwater. To achieve this broad goal the Government has set up a network of advisory groups to test proposals and provide input on options (see later in this memorandum).

The Government has stated that it intends to provide opportunities for public comment on specific issues throughout 2019 and 2020 before final decisions are made.

Objectives of the *Essential Freshwater* work programme

The work programme has three main objectives:

1. **Stopping further degradation and loss –** taking actions now to stop the state of our freshwater resources getting worse and to start making immediate improvements so that water quality is materially improving within five years.
2. **Reversing past damage –** promoting restoration activity to bring our freshwater resources to a healthy state within a generation.
3. **Addressing water allocation issues –** working to achieve efficient and fair allocation of freshwater and nutrient discharges, having regard to all interests including Māori.

Work programme

The work programme is intended to deliver on the above objectives by developing options for Government decisions in six workstreams. The six workstreams are:

1. At-risk catchments
2. National Policy Statement for Freshwater Management amendments
3. A new National Environmental Standard for Freshwater Management
4. Resource Management Act amendments
5. Allocation of freshwater resources
6. Future policy framework development.

A summary of what is proposed and the next steps in developing each of the workstreams is given in the following table.

At-risk catchments	Identify at-risk catchments to: • Assess what can be achieved within current rules • Consider the need for new regulatory intervention • Consider where investment could be targeted e.g. One Billion Trees programme and other funds

	• Identify existing restoration projects that could be scaled for increased impact • Support voluntary action by councils, Māori, NGOs industry and other community groups. The focus of this workstream is on those catchments where there is a clear decline in ecosystem health and where action is necessary to stop further degradation and start reversing the damage that has occurred. Builds on work already underway. **Next steps:** • Report to Government with an overview of at-risk catchments and recommendations on potential interventions, by the end of 2018.
National Policy Statement for Freshwater Management amendments (NPS-FM)	A new NPS-FM will be based on the principles proposed in 2010 by the Sheppard Inquiry. It may adjust timeframes for implementation, provide greater direction on how to set limits on resource use and provide better protection for ecosystem health, wetlands and estuaries. Work has begun on potential amendments including discussions with freshwater scientists and other interested parties about the strengths and shortcomings with the NPS. Areas being considered for amendment include: • How to better provide for ecosystem health. • Potential new attributes – sediment, copper and zinc, dissolved oxygen. • Clarifying the direction around how to set limits. • Better protection for wetlands and sensitive downstream environments e.g. estuaries. • Potential policy on at-risk catchments. • Resolving exceptions to national bottom lines. • Other changes proposed by the Land and Water Forum and other groups e.g. use of good management practices, management of urban catchments and protection of sources of human drinking water. The Science and Technical Advisory Group will play an important role in testing and advising on scientific aspects of the NPS-FM, such as new attributes, national bottom lines and alternative approaches. **Next steps:** • Options will be discussed with the advisory network (Kahui Wai Māori, Freshwater Leaders Group, and the Science and Technical Advisory Group) over the next six months. • Public consultation will be held in 2019. • The amended NPS-FM will be in force in 2020.

A new National Environmental Standard for Freshwater Management (NES-FM)	A new NES-FM will provide clear and specific direction on resource use, in particular where rapid action is required, for example in at-risk catchments. A Freshwater NES is a potential mechanism for prohibiting activities or including rules that restrict activities such as the draining of wetlands or piping of urban streams. Certain activities such as intensive winter grazing, hill country cropping, and feedlots are expected to be regulated under a Freshwater NES. Areas to be considered are: • Preventing further loss of wetlands and urban streams. • Mechanisms for managing intensification, including targeting at-risk catchments. • Direction around the use of farm environment plans, and good management practices such as stock exclusion and riparian management. • Rules to control activities such as intensive winter grazing, hill country cropping and feedlots. • Direction on nutrient allocation. • Direction for the review of existing consents. • A default regime for ecological flow and levels where none are set, and how minimum flows apply to existing consents. **Next steps:** • Options will be discussed with the advisory network over the next 6 months. Other national direction will also be considered as a way to achieve the policies. • Public consultation will be held in 2019. • The Freshwater NES will be in force in 2020.
Resource Management Act amendments	Amendments planned in the short term to reduce complexity, improve certainty, and improve public participation that will have an impact beyond water management. For water management, the proposed amendments will better enable regional councils to review consents, to more quickly implement water quality and quantity limits as required in the NPS-FM. The amendments will also strengthen enforcement tools for improving environmental compliance. The 2019 RMA Bill will cover a narrow range of amendments with a second, more comprehensive review of the resource management system to follow. **Next steps:**

	An amendment Bill is due to be introduced to Parliament in late 2018 or early 2019.
Allocation of freshwater resources	Includes both takes and discharges but because the priority is water quality the initial focus will be on contaminant discharges, including nitrogen, phosphorus, sediment and microbial pathogens. Contaminant discharges must be restricted in many catchments. Every catchment has a different mix of land use and soil types. The challenge is to find a way to fairly and efficiently allocate discharges among resource users (properties and point source discharges such as wastewater treatment plants) taking into account current land use and potential future development. The initial focus is on nitrogen, because there is already some ability to measure, model or monitor nitrogen discharges at a property level. The Land and Water Forum discussed how to allocate discharge rights but could not resolve the tension between existing users and owners of underdeveloped land, including Māori. Options will be discussed with the advisory groups and other interested parties. The authority to take and use water is also an important area where Māori rights and interests must be recognised together with fairness to existing users, economic development and efficiency. Measures that may be considered include water storage and distribution, managed aquifer recharge and technology that supports greater efficiency. **Next steps:** • Issues and options for allocation of discharges will be discussed and consulted on through 2019 and 2020. • Options on water take allocation will be developed in 2019/2020.
Future framework	Some of the elements for safeguarding freshwater are at least partially in place but are not adequate. Progress has been patchy and too slow. It will take time to put a new framework in place but it is important that the Government has a clear vision to work towards. The policy framework the Government is working towards is expected to have the following major elements: • Set freshwater objectives and limits catchment-by-catchment and develop integrated management plans, with regional councils continuing to give effect to national policy statements and national environmental standards.

	• Ensure good practice is applied everywhere. • Drive more fundamental change where ongoing good practice is not enough (this may involve further regulatory restrictions or economic tools such as pollution charges or trading regimes). • Better target support from government to help landowners and others change. • Invest in developing and disseminating solutions. • Continuously improve the accuracy of monitoring, modelling and measurement of discharges. • Support councils to undertake their roles and monitor system performance. A reformed planning process would allow councils to plan, set and adjust limits/outcomes and implement decisions far more quickly, and with less litigation and better incentives for collaboration than the current system. Moving towards this framework cannot happen all at once and a transition period is needed.

Working together

The Government has signalled that it is committed to working inclusively to find solutions that are enduring and practical. To this end, it is proposing to set up a network of advisors to test proposals and provide input on options. The *Essential Freshwater* document contains details of the proposals (see pages 18 and 19) but in summary contains a multi-agency Taskforce of officials drawn central and local government to drive the work programme, sitting alongside four advisory groups.

The advisory groups are Kahui Wai Māori, the Freshwater Leaders Group, a Science and Technical Advisory Group and a Regional councils group.

Principles to be applied

The Government has agreed to a set of principles to apply to the *Essential Freshwater* work programme (see page 20 of the *Essential Freshwater* document). These include the following:

- Ensure central government plays an effective leadership role while retaining appropriate decision-making at local government level.
- Establish policies and solutions that are enduring.
- Work with landowners, water users, Māori communities and local government.
- Providing for flexibility and adaptability.
- Promoting an integrated approach to freshwater management.
- Promoting sound environmental outcomes while seeking to optimise social, cultural economic development and national identity outcomes.
- Address the rights and interests of Maori.
- Provide for intergenerational equity.

- Ensure the benefits of commercial use are not captured solely by existing users so that new users can access water to ensure it is applied to higher value uses with lower environmental impact.

Related work

Other government programmes underway will make an important contribution to the new work programme. These are outlined in the *Essential Freshwater* document on page 15.

Included among them are establishing a Compliance Oversight Unit within the Ministry for the Environment to improve consistency, effectiveness and transparency of council enforcement of RMA rules and decisions; the Three Waters Review being led by the Department of Internal Affairs and the Government's response to the Inquiry into Havelock North Drinking Water, among others.

Discussion

The recent announcements are yet another series of proposed policy changes that will potentially have significant financial implications for regional councils in reviewing their statutory planning documents and in processing resource consents. The Council has argued that a period of stability and consolidation is needed after the major changes in freshwater management seen over the last few years. This would allow regional councils to get on with developing and implementing policy and to set forward budgets accordingly against a relatively settled national policy environment.

However, Members will recall that freshwater issues featured prominently in the 2017 general election and the Government has now signalled its future intentions in this area. We therefore have further significant change on the horizon and it is possible that this may go on for some time, and potentially beyond the next two years.

At this stage at least, the proposals lack detail as to what specific changes are likely. No detail has been provided on the substance of changes to the NPS-FM, the scale of new regulation under the NES–FM or amendments to the RMA. Neither is there any indication in the documents of the timeframes for implementation of the new policy and rules. However, liaison with MfE staff reveals that a lot of the changes will arrive in April 2019 which may test the capacity of the Council's small planning team.

There is little direct reference in the NPS-FM proposals released by the Government, to the swimmability targets set by the previous Government. Members will recall that this Council had major issues with the swimmability targets and that these were to be maintained at all times regardless of weather conditions, river flow or seasonality. Careful assessment by Council staff shows that the Council would fail to meet the targets set.

The *Essential Freshwater* document acknowledges shortcomings in the current NPS-FM and states that new attributes, national bottom lines and alternative approaches will be considered. This offers some encouragement that a more sensible approach will be adopted.

In relation to the new proposed NES on freshwater, this tool allows rules to be promulgated that would prohibit activities or restrict certain activities such as the draining of wetlands, the piping of streams, intensive winter grazing, feedlots etc. Once enacted, regional councils would be required to implement the rules through the resource consent process with

appropriate monitoring and enforcement action if necessary. The range of matters that may be included in a new NES are wide-ranging (see table) with the intention to provide a degree of focus on at risk catchments.

A 'one-size fits all' approach will not work when proposing new regulations and the Council will need to consider the new rules carefully to ensure they do not impose unnecessary costs on the Taranaki community.

The Government will discuss possible changes to the NPS-FM and the extent of further regulation under a new NES on freshwater management over the next 12 months or so with the various advisory groups before public consultation, and ultimately, decisions by the Government. In the meantime, work will continue on the Council's *Draft Freshwater and Land Management Plan* with new changes imposed by central government incorporated efficiently as part of the review process with significant cost savings to the Council relative to its counterparts who are in the midst of the planning process.

The proposal that 'at-risk' catchments are prioritised for possible new regulation or targeted investment is supported in principle, although decisions have yet been made on where the 'at-risk' catchments are and what make them 'at-risk'. In early discussions with MfE, Council staff have noted that there are currently no 'at-risk' catchments in Taranaki based on the criteria given to us. Iwi in each region have been asked by MfE to identify at risk catchments.

Further changes to the RMA are planned, possibly as soon as late 2018 or early 2019. One of the main areas of concern for this Council is the lack of plan agility under the RMA and the often lengthy, costly and drawn out processes of preparing and changing plans. The Council has submitted on this issue in the past arguing for a much more streamlined plan preparation and review process. Under the current Schedule 1 process getting a proposed plan or plan change to a fully operative stage can take up to seven years or more and cost millions of dollars. This is a major reason for the slow progress on freshwater quality noted by the Government.

The *Essential Freshwater* document recognises the need to accelerate timeframes for getting plans in place and for changing plans, but whether the amendments will go far enough remains to be seen. Without doubt, the current timeframes are too slow, too costly and ultimately affect the ability of regional councils to adapt their regulatory regimes to a rapidly changing environment.

Little detail is provided on other changes to the RMA. The Government has indicated it intends to make amendments in the short term to reduce complexity and improve certainty. These statements are supported. They have also said for water management, the proposed amendments will enable regional councils to review consents to enable water quality and quantity limits set in the Freshwater NPS to be implemented more quickly. The amendments will also strengthen enforcement tools. Again, these general statements and intentions are supported but the details will need to be examined for their usefulness and practicality. Increased fines for infringement notices would be a useful outcome of this review.

Since the release of the *Essential Freshwater* document, the Government has announced a two-step RMA review process (see item elsewhere in the Agenda on the Government's Proposed Resource Management system review). The announcements were made on 8 November 2018. In making the announcements, the Minister confirmed a number of more narrowly focussed amendments will be made to the RMA as part of Stage 1. A bill will be introduced

early in 2019 to give effect to Government decisions on Stage 1. A more comprehensive review of the resource management system will begin in 2019.

It is helpful that the Government has made announcements on its approach to iwi rights and interests in freshwater at the same time as announcing proposals on freshwater management generally. In the *Shared Interests in Freshwater* document the Government sets out what it wishes to explore with iwi in relation to freshwater. The document notes that there is a wide range of views within Māoridom about how to address freshwater issues. Iwi involvement in governance, management and decision-making is critical as is the ability to access and use water to realise iwi economic and development interests.

On a more general note, the package acknowledges that there are urban issues as well as rural ones, and that a transition to sustainable land and water use will take time and need active support, not just regulation. The proposals under the 'Future Framework' emphasise this point. This section also recognises local variability, catchment based management, the need to promote good practice and to support councils in their work.

Overall, the package contains a number of positive goals and intentions but these are of a general nature and the detail, once developed over the next 12 to 18 months, will need careful analysis. The devil will be in the detail.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: Proposed resource management system review

Approved by: A D McLay, Director – Resource Management

B G Chamberlain, Chief Executive

Document: 2154682

Purpose

The purpose of this memorandum is to inform Members of recent announcements made by the Minister for the Environment, on the proposed resource management system review and in particular, on proposals for Stage 1 of the review, timed for early next year.

Further details of the reform programme together with a media release from the Minister for the Environment can be found at http://www.mfe.govt.nz/rma/improving-our-resource-management-system

Executive summary

On 8 November 2018, the Minister for the Environment announced a two-stage process to improve the resource management system.

Stage 1 is to be a narrowly focussed set of amendments to the Resource Management Act (RMA). These focus on the more widely criticised changes made to the RMA by the Resource Legislation Amendment Act 2017 (RLAA 2017), and which the Minister considers are relatively straightforward to correct. Many of these changes are related to district plan consenting processes such as reversing the RLAA 2017 change that all subdivision proposals are permitted unless restricted by a rule. Reinstating the use of financial contributions is also flagged for Stage 1 and this was something this Council argued strongly for retaining.

Also proposed are a number of new changes to the RMA. These include increasing infringement offences under the RMA and extending the period for lodging prosecutions, both of which are matters this Council has advocated for over the years. Also included is a proposal to enable the review of the conditions of multiple resource consents, for example on a catchment-by-catchment basis, which would be positive for regional councils and be another tool in the toolbox for water quality management purposes.

A Bill dealing with these changes is proposed to be introduced to Parliament early in 2019.

Stage 2, beginning in 2019, will be a more comprehensive review of the resource management system, building on current work in urban development, climate change and freshwater, and including input from the Productivity Commission, Local Government New Zealand and the Environmental Defence Society, among others. Stage 2 will provide an opportunity for the Government to make more fundamental changes to the resource management system.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum *Proposed resource management system review*
2. notes that the Government is proposing a two stage review of the resource management system with Stage 1 being a narrowly focused set of amendments to the Resource Management Act programmed for early in 2019, with Stage 2 being a more comprehensive review of the resource management system, programmed to start in 2019
3. notes that the Council will make a submission on Stage 1 of the review when a Bill is introduced in early 2019.

Background

On 8 November 2018, the Minister for the Environment announced a two-stage process to improve the resource management system.

Stage 1 is to be a narrowly focussed set of amendments to the Resource Management Act (RMA). These focus on the more widely criticised changes made to the RMA by the Resource Legislation Amendment Act 2017 (RLAA 2017), and which the Minister considers are relatively straightforward to correct. Many of these changes are related to district plan consenting processes. Also proposed are a number of new changes to the RMA. A Bill dealing with these changes is proposed to be introduced to Parliament early in 2019.

Stage 2, beginning in 2019, will be a more comprehensive review of the resource management system, building on current work in urban development, climate change and freshwater, and including input from the Productivity Commission, Local Government New Zealand and the Environmental Defence Society, among others. Stage 2 will provide an opportunity for the Government to make more fundamental changes to the resource management system.

Discussion

Stage 1

The Minister has stated the specific objectives for the Bill to be introduced early in 2019 are to reduce complexity and increase certainty, and to restore appropriate opportunities for meaningful public participation in resource consent processes.

These proposals will repeal several amendments made in 2017, which were widely criticised at the time by councils, businesses and other affected members of the community. The 2017 changes created complexity and perverse incentives in the system, particularly in relation to district plan consents. The Cabinet papers that accompany the announcements, have cited

evidence that the changes have hindered applicants as well as affected parties, including owners of important infrastructure assets.

Other changes proposed as part of Stage 1 are new RMA amendments and relate in particular to improving resource consenting processes, freshwater management, enforcement and Environment Court operations.

Some of the main changes proposed that would repeal provisions of the RLAA 2017 are:

- Reducing the powers of the Minister for the Environment to prohibit or overturn local plan rules.
- Reversing the RLAA 2017 change that all subdivision proposals are permitted unless restricted by a rule.
- Removing preclusions on public notification and appeals for subdivision and residential activity resource consents, and restrictions on the scope of appeals. These changes have resulted in some applicants applying unnecessarily for non-complying consents to avoid restrictions on appeal rights, and also preventing infrastructure operators from being able to submit on 'reverse sensitivity' issues regarding applications for residential intensification near their facilities.
- Repealing the regulation-making power for additional fast-track activities. These regulations, had they been made, would have identified other types of resource consents, in addition to controlled district land use activities, that would have been subject to fast-track processes.
- Reinstating the use of financial contributions. This was something that this Council argued strongly should be retained.

With respect to new RMA amendments some of the changes proposed are:

- Enabling applicants to have the processing of non-notified resource consent applications suspended. Currently this is available only for notified resource consents.
- Enabling councils to suspend the processing of resource consent applications until fixed administrative charges are paid.
- Enabling longer time periods to lodge retrospective resource consents for emergency works. The proposal is that 60 working days be allowed, up from the current 20 working days.
- Enabling review of conditions of multiple resource consents. This will be advantageous for regional councils who will have clarity that they can consider the effects of multiple consents at the same time.
- Clarifying the legal status of deemed permitted activities as lawfully established activities.
- Enabling the regulation of high-risk land use activities. Further policy work is likely on this to look into the need to regulate high-risk land use activities to achieve water quality outcomes.
- Strengthening enforcement tools for improving environmental compliance. This includes increasing the maximum fines for infringement offences (including stock exclusion), to $2000 for a 'natural person' and $4000 for other persons. Currently the fees are $2000 for stock exclusion offences and $1000 for all other offences. Also proposed is an extension to the statutory limitation period for filing charges for prosecutions from the current period of 6 months to 12 months from when an alleged offence was known about. This will provide councils with more time to

collect and prepare evidence. These are matters that this Council has called for the past.
- Enabling the Environmental Protection Authority (EPA) to take enforcement action under the RMA.
- Enabling the Environment Court to review councils' resource consent notification decisions.
- Clarifying who can be appointed as alternate Environment Judges.
- Protecting special advisors to the Environment Court.

Stage 2

Stage 2 will provide an opportunity for the Government to make more fundamental changes to the resource management system. At this stage, Stage 2 will focus on the following five broad areas:

- Improving alignment across different pieces of resource management legislation.
- Ensuring plans can be created, amended and implemented within a more reasonable timeframe while providing meaningful opportunities for public participation.
- Improving the quality of decision-making.
- Issuing clear national direction.
- Removing unnecessary complexity, in part by rationalising the multiple decision-making pathways which have proliferated since the RMA originally passed in 1991.

Stage 2 will also be informed by legislative changes arising out of the Government's urban growth agenda. This will address such things as land supply, development capacity and infrastructure provision.

Two specific issues that will be considered under Stage 2 are climate change and urban tree protection (see Cabinet Paper attached to http://www.mfe.govt.nz/rma/improving-our-resource-management-system for details).

The Council would welcome a more fundamental review of processes that have grown up under the RMA. We have advocated on more than one occasion for an overhaul of the plan making system under the RMA, which is increasingly seen as not fit-for-purpose in the rapidly changing environment that councils find themselves in. Much greater levels of plan agility are required if councils are to respond effectively and efficiently to these changes.

These aspects of the more fundamental review which the Minister has announced, are lacking in detail and we will have to wait until next year to see what is proposed. There may well be further issues when more detail is available.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Agenda Memorandum

Date 20 November 2018

Memorandum to
Chairperson and Members
Policy and Planning Committee

Subject: **National Policy Statement for Urban Development Capacity – minimum housing targets**

Approved by: A D McLay, Director – Resource Management

B G Chamberlain, Chief Executive

Document: 2150479

Purpose

The purpose of this memorandum is to provide, for the Members' information and consideration, an update on the implementation of the *National Policy Statement for Urban Development Capacity* (NPS-UDC), including minimum housing targets for New Plymouth urban areas that must be incorporated into the *Regional Policy Statement for Taranaki*.

Executive summary

- In 2015 a Productivity Commission inquiry recommended that Government prepare a national policy statement to help address resource constraints on urban housing and business development capacity. Under the Resource Management Act 1991 (RMA), regional policy statements and plans must give effect to any national policy statement.

- The NPS-UDC was gazetted on 3 November 2016 and came into force on 1 December 2016. Ensuring sufficient "development capacity" also became a matter of national significance as a result of more recent amendments to the RMA.

- The NPS-UDC requires regional and district councils to provide sufficient urban development and planning capacity for housing and business growth, to match projected rises in population, and to enable changes in the future. New Plymouth District Council and this Council have been collaborating and sharing the work associated with implementing the NPS-UDC.

- New Plymouth district's status was re-classified from a "medium-growth" to a "high-growth" urban area in late 2017 and this change required the councils to complete four outputs including: quarterly monitoring reports; a three-yearly housing and business development capacity assessment; minimum targets for sufficient feasible development capacity for housing; and a future development strategy.

- NPDC has taken lead responsibility for preparing the quarterly monitoring reports and the Housing and Business Development Capacity Assessment and this Council has taken the lead on preparing the Ffuture development strategy. Preparation of the housing and business development capacity assessment is substantially complete despite some data modelling challenges.

- The NPS-UDC requires that the minimum targets clearly show the level of demand for housing needed in the medium and long term at a regional and district level. In Taranaki, currently the only high-growth area is the New Plymouth district, so there is only one set of targets for the region.

- Minimum targets include additional margins of feasible development capacity over and above the projected demand of at least 20% in the short and medium term and 15% in the long term. The additional margins allow for the likelihood that not all plan-enabled, and commercially feasible, development capacity will result in actual development.

- Making amendments to the Regional Policy Statement or the District Plan to incorporate the minimum targets does not require a public Schedule 1 procedure under the RMA.

- To date no reply has been received to the councils' joint letter to Minister Parker of April 2018 seeking a formal extension of timeframe for the FDS. This Council has therefore commenced development of the FDS and is preparing to incorporate the minimum targets identified by the HBCA into the Regional Policy Statement.

- The FDS will act as a guide for planners, decision-makers, infrastructure providers, businesses, and the community about future urban growth, constraints to that growth, and opportunities and solutions for managing growth over the next 30 years.

- The FDS must be informed by the HBCA and demonstrate that there will be sufficient, feasible development capacity in the medium and long term. It also sets out how the minimum targets referred to in this memorandum will be met.

- In developing the future development strategy , the councils have agreed to undertake a targeted low level consultation process that complies with Part 6 of the Local Government Act.

Recommendations

That the Taranaki Regional Council:

1. receives this memorandum *National Policy Statement for Urban Development Capacity – minimum housing targets*
2. notes the outcome of the letter to the Minister for the Environment seeking an extension of time in which to complete the Future Development Strategy
3. agrees to the projected timeframe for the Future Development Strategy
4. endorses the minimum targets that are required to be incorporated into the Regional Policy Statement.

Background

In 2015 the Productivity Commission inquiry into 'Using land for housing' recommended that Government prepare a national policy statement to help address resource constraints on urban housing and business development capacity. Under the Resource Management Act 1991 (RMA), regional policy statements and plans must give effect to any national policy statement.

The NPS-UDC was gazetted on 3 November 2016 and came into force on 1 December 2016. Ensuring sufficient "development capacity" also became a matter of national significance as a result of more recent amendments to the RMA.

The NPS-UDC requires regional and district councils to provide sufficient urban development and planning capacity for housing and business growth, to match projected rises in population, and to enable changes in the future. New Plymouth district's status was re-classified from a "medium-growth" to a "high-growth" urban area in late 2017. The re-classification requires the New Plymouth District Council (NPDC) and Taranaki Regional Council (the Council) to undertake quarterly monitoring reports on urban development activity and price efficiencies; prepare a three-yearly housing and business development capacity assessment (the HBCA); agree and set minimum targets for sufficient feasible development capacity for housing; and prepare a future development strategy (the FDS) which must demonstrate sufficient, feasible urban development capacity in the medium[1] and long term[2].

This Council and the New Plymouth District Council (NPDC) are collaborating to complete the four deliverables, while recognising that core land use planning and management is the responsibility of NPDC.

NPDC has taken lead responsibility for preparing the quarterly monitoring reports and the HBCA, and this Council has agreed to take the lead on preparing the FDS. Preparation of the HBCA is substantially complete despite challenges caused by problems with the analytical model created by Government to analyse and determine business capacity. NPDC have subsequently contracted Property Economics[3] to undertake corrections to the model and to provide the business information required for the HBCA. Some additional delays have occurred because Property Economics has also been doing this work for several other councils.

The draft HBCA contains information on the sufficiency and feasibility of any identified development capacity and this information is required for the FDS. The FDS is also required to incorporate the minimum targets for housing, which must be agreed between councils.

Members may recall that, in April 2018, NPDC and this Council jointly wrote to Minister David Parker to request a formal extension of timeframe to 31 June 2019 for our FDS. This was undertaken because, unlike the other high-growth councils – who had received a one-year period in which to complete their FDS after their HBCA was complete – Whangarei and NPDC were only granted six months.

[1] *Between 3 and 10 years.*
[2] *Between 10 and 30 years.*
[3] The principal of Property Economics is Tim Heath.

To date there has been no reply to our joint letter. This Council has therefore commenced development of the FDS and is preparing to incorporate the minimum targets identified by the HBCA into the Regional Policy Statement.

In addition to the development of the FDS, both councils must incorporate minimum targets for housing into the Regional Policy Statement and the District Plan. Of note, making amendments to the Regional Policy Statement or the District Plan to incorporate the minimum targets does not require a public Schedule 1 procedure under the RMA.

Minimum targets for inclusion in the Regional Policy Statement

The NPS-UDC requires minimum targets be set for sufficient, feasible development capacity for housing, for all high-growth urban areas. Minimum targets clearly show the level of demand for housing needed in the medium and long term at a regional and district level. In Taranaki, currently the only high-growth area is the New Plymouth district, so there is only one set of targets for the region.

Minimum targets Policies PC1 and PC2 of the NPS-UDC address the provision of additional margins of development capacity. Policy PC1 factors in the proportion of feasible development capacity that may *not* be able to be developed, in addition to the criteria set out in policy PA1 to ensure sufficient, feasible development capacity over the short, medium, and long term (see table in FDS section). It sets out additional margins of feasible development capacity over and above projected demand of at least:

- 20% in the short and medium term [i.e. over the period up to 2028]; and
- 15% in the long term [i.e. over 20-30 years up to 2048].

The additional margins allow for the likelihood that not all plan-enabled, and commercially feasible, development capacity will result in actual development. This is because a proportion of land owners with such land will hold onto their land for various reasons.[4] Providing an additional margin of feasible development capacity over and above projected demand is necessary in order to recognise and account for land being held back, and to allow enough scope for development to respond to growth in demand.

Policy PC2 states that if evidence from the monitoring and HBCA evidence indicates a higher margin is necessary, that margin should be used. This recognises that, in some situations, it may be that the original margin is not large enough for local circumstances.

The intent behind such targets is to:

- ensure local authorities focus on the minimum amount of housing development capacity required to meet the projected demand;
- set targets based on projections for demand and additional margins, in the medium and long term;
- encourage local authorities to collaborate and cooperate to agree their minimum targets for housing development capacity; and

[4] Land is appreciating faster than projected development return; land is subject to legal covenants that may prevent certain types of development occurring; land identified as feasible may be an owner-occupied family farm or suburban backyard, which the owners have no intention of developing; or the practicalities and transaction costs of development may be too much to bother with.

- set the minimum amount of housing development capacity that must be provided by the activity or zone-based RMA policies and methods.

Targets must relate to an agreed geographic area, which at this stage will incorporate all the urban areas within the whole New Plymouth district[5].

Policy PC5 of the NPS-UDC provides that councils should set agreed minimum targets, incorporate them into regional policy statements and plans, and review them every three years. The minimum targets must be in place by the end of 2018. However, in contrast to the usual lengthy public Schedule 1 consultation process, the minimum targets can be inserted directly in the relevant Regional Policy Statement or plan pursuant to section 55(2A) of the RMA, which means that no consultation is required.

Set out in the table below are the minimum targets for inclusion in the Regional Policy Statement. The draft HBCA states that the projected actual demand in the short to medium term (2018 to 2028) is that New Plymouth will need 3,700 additional dwellings. The NPS-UDC adopts a precautionary approach in terms of ensuring there is sufficient housing capacity and therefore requires local authorities to add a 20% margin to that projection. Accordingly, the minimum target for New Plymouth in the short to medium term is 4,441 dwellings. Minimum targets for long-term projections are also provided.

Term	**Short to medium term** *Up to 2028*	**Long term** *2028-2048*	**30-year timeframe** *2018-2048*
Minimum targets[6]	**4,441** dwellings	**6,479** dwellings	**10,919** dwellings
Projected actual demand	**3,700**	**5,634**	**9,334**

It is intended that the above table, and other consequential changes, be incorporated into the Regional Policy statement as soon as practicable and before the 31 December 2018 deadline.

Targets will also be included in the NPDC Proposed District Plan, and in the FDS.

Future Development Strategy

High-growth local authorities are required to produce a Future Development Strategy by 31 December 2018. The FDS will act as a guide for planners, decision-makers, infrastructure providers, businesses, and the community about future urban growth, constraints to that growth, and opportunities and solutions for managing growth over the next 30 years.

Under Policy PC 14 the FDS must be informed by the HBCA and have particular regard to Policy PA1, which sets out the criteria for development capacity over the short, medium, and long terms:-

[5] New Plymouth central and residential areas, Bell Block, Oakura, Okato, Waitara, Inglewood, Urenui, Egmont Village, Lepperton and Onaero.

[6] The minimum dwelling targets are the projected actual demand plus a margin of 20% for the short to medium term, and a margin of 15% for the long term.

Term	Criteria
Short term	Development capacity must be feasible, zoned and serviced with development infrastructure.
Medium term	Development capacity must be feasible, zoned and either: • Serviced with development infrastructure, or • The funding for the development infrastructure required to service that development capacity must be identified in a Long Term Plan required under the Local Government Act 2002.
Long-term	Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.

The FDS must demonstrate that there will be sufficient, feasible development capacity in the medium and long term and set out how the minimum targets referred to in this memorandum will be met (Policy PC12).

Policy PC13 requires that the FDS shall –

a. *identify the broad location, timing and sequencing of future development capacity over the long term in future urban environments and intensification opportunities within existing urban environments*
b. *balance the certainty regarding the provision of future development with the need to be responsive to demand for such development*
c. *be informed by the relevant Long Term Plans and Infrastructure Strategies required under the Local Government Act 2002, and any other relevant strategies, plans and documents.*

In developing the FDS, Councils must undertake a consultation process that complies either with Part 6 of the Local Government Act or with Schedule 1 of the Resource Management Act. Both this Council and NPDC have agreed that the consultation for our FDS will comply with Part 6 of the Local Government Act. This means the preparation of a consultation document and a targeted, low-key informal consultation with interested parties and stakeholders such as property developers, infrastructure providers, NZTA, iwi and hapu, and community boards.

This Council has commenced preparation of a draft FDS in accordance with government guidance and through discussion with NPDC. The delay in completion of the HBCA has impacted on the preparation of the FDS but it is intended that a draft FDS will be completed by the end of December 2018.

A summary document will be created for consultation purposes and this process is intended to take place in early 2019. Members will be updated further in the first quarter of 2019.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Iwi and hapu groups with their rōhe in the New Plymouth district have been involved in the discussions around future urban growth through the NPDC Proposed District Plan process and their feedback on the FDS will also be sought.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Whakataka te hau

Karakia to open and close meetings

Whakataka te hau ki te uru	Cease the winds from the west
Whakataka te hau ki tonga	Cease the winds from the south
Kia mākinakina ki uta	Let the breeze blow over the land
Kia mātaratara ki tai	Let the breeze blow over the ocean
Kia hī ake ana te atakura	Let the red-tipped dawn come with a sharpened air
He tio, he huka, he hauhu	A touch of frost, a promise of glorious day
Tūturu o whiti whakamaua kia tina.	Let there be certainty
Tina!	Secure it!
Hui ē! Tāiki ē!	Draw together! Affirm!

Nau mai e ngā hua

Karakia for kai

Nau mai e ngā hua	Welcome the gifts of food
o te wao	from the sacred forests
o te ngakina	from the cultivated gardens
o te wai tai	from the sea
o te wai Māori	from the fresh waters
Nā Tāne	The food of Tāne
Nā Rongo	of Rongo
Nā Tangaroa	of Tangaroa
Nā Maru	of Maru
Ko Ranginui e tū iho nei	I acknowledge Ranginui above and
Ko Papatūānuku e takoto ake nei	Papatūānuku below
Tūturu o whti whakamaua kia tina	Let there be certainty Secure it!
Tina! Hui e! Taiki e!	Draw together! Affirm!