

Policy and Planning Committee

Tuesday 13 March 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 13 March 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 C S Williamson	
	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)
	Councillor P Nixon	(South Taranaki District Council)
	Mr M Ritai	(Iwi Representative)
Apologies	Councillor D L Lean	
	Mr P Muir	(Taranaki Federated Farmers)

Notification of Late Items

Item	Page	Subject
Item 1	4	Confirmation of Minutes
Item 2	10	Key Native Ecosystems programme update 2018
Item 3	38	Tiaki Te Mauri O Parininihi Trust - Annual Update
Item 4	50	Annual report on the implementation of the National Policy Statement for Freshwater Management: 2016/2017
Item 5	60	Report on draft swimmability targets
Item 6	70	Draft report on incorporating mātauranga Māori into monitoring of freshwater in Taranaki

- Item 7 116 Department of Conservation review of the effect of the New Zealand Coastal Policy Statement
- Item 8 175 Quarterly monitoring report on urban development indicators for New Plymouth District
- Item 9 204 Public Excluded
- Item 10 205 Confirmation of Confidential Minutes

Closing Karakia and Karakia for kai

Agenda Memorandum

Date 13 March 2018

**Memorandum to
Chairperson and Members
Policy and Planning Committee**



**Subject: Confirmation of Minutes – 30 January
2018**

Approved by: A D McLay, Director-Resource Management
B G Chamberlain, Chief Executive

Document: 2019624

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 30 January 2018 at 10.40am
2. notes the recommendations therein were adopted by the Taranaki Regional Council on 20 February 2018.

Matters arising

Appendices

Document #1999898 – 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 30 January 2018 at 10.40am.



Members	Councillors	N W Walker	(Committee Chairperson)	
		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)	
	Councillor	G Boyde	(Stratford District Council)	
	Councillor	C Coxhead	(South Taranaki District Council)	
	Mr	J Hooker	(Iwi Representative)	
	Councillor	R Jordan	(New Plymouth District Council)	
	Mr	M Ritai	(Iwi Representative)	
Attending	Messrs	A D McLay	(Director-Resource Management)	
		G K Bedford	(Director-Environment Quality)	
		S R Hall	(Director-Operations)	
		C L Spurdle	(Planning Manager)	
		G C Severinsen	(Policy and Strategy Manager)	
		R Ritchie	(Communications Manager)	
		P Ledingham	(Communications Officer)	
		S Tamarapa	(Iwi Communications Officer)	
		Mrs	K van Gameren	(Committee Administrator)
		Mrs	N West	(Policy Analyst)
	Mrs	F Hafiz	(Environmental Scientist)	
	Mr	C L McLellan	(Consents Manager)	
	Mr	B E Pope	(Compliance Manager)	
	Mrs	J Ritchie	(Policy Analyst)	
	Ms	S Norgate	(Student)	
	Mrs	H Gerrard	(Science Manager)	
	Mr	R Phipps	(Science Manager)	
	Mrs	F Mulligan	(Iwi Representative)	
	Mr	K Holwsich	(Iwi Representative)	
	Mr	J Clough	(Wrightson Consulting)	

Two Members of the public.

Apologies The apologies from Councillor M P Joyce and Mrs B Muir (Taranaki Federated Farmers) were received and sustained.

**Notification of
Late Items**

There were no late items of business.

1. Confirmation of Minutes - 21 November 2017

Resolved

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 21 November 2017 at 10.30am
2. notes that the recommendations therein were adopted by the Taranaki Regional Council on 12 December 2017.

Williamson/McIntyre

Matters Arising

There were no matters arising.

2. Adoption of the Regional Pest Management Plan and Biosecurity Strategy

- 2.1 Mr S R Hall, Director-Operations, spoke to the memorandum seeking agreement from the Committee to adopt the *Regional Pest Management Plan for Taranaki* and the *Taranaki Regional Council Biosecurity Strategy 2017-2037*.

Recommended

That the Taranaki Regional Council:

1. receives this memorandum on the *Adoption of the Regional Pest Management Plan and Biosecurity Strategy*
2. notes that the Council prepared its Decision Report, publicly notified the report, and provided a copy to each submitter and to the public in November 2017
3. notes that no applications on the Plan were lodged in the Environment Court by the deadline which ended on 24 November 2017
4. agrees that the Common Seal be affixed to the Plan and that Council make and adopt the Plan and Biosecurity Strategy.

Littlewood/MacLeod

3. National climate change reports

- 3.1 Mr G C Severinsen, Policy and Strategy Manager, spoke to the memorandum introducing three reports released by Climate Change Minister James Shaw in December 2017.

Recommended

That the Taranaki Regional Council:

1. receives this memorandum *National climate change reports*.

Williamson/Raine

4. Taonga Freshwater Fish Populations in Aotearoa, New Zealand

- 4.1 Mr S Tamarapa, Iwi Communciations Officer, spoke to the memorandum introducing a National Institute of Water and Atmosphere (NIWA) report, commissioned by the Te Wai Maori Trust, on taonga freshwater populations in Aotearoa, New Zealand. A presentation *Understanding Taonga Freshwater Fisi Populations in Aotearoa, New Zealand*, was provided in support of the agenda item.
- 4.2 It was noted to the Committee that the NIWA report shows the number of fishery records for Taranaki is high and noteworthy reflecting the Council, and the efforts of others, in this important area that will help underpin policy. The Council's state of the environmental monitoring programme has a fish distribution component that includes some of the taonga species. Results of the monitoring are publically reported and provided the basis for collaboration with iwi authorities and other regulators and further development of relationships.

Recommended

That the Taranaki Regional Council:

1. receives the memorandum on Taonga Freshwater Fish Populations in Aorearoa, New Zealand
2. notes the report will be useful for the review of the Regional Freshwater and Land Plan
3. notes the report will assist the Council in developing a monitoring plan for Mātauranga Māori as required by the National Policy for Freshwater Management 2014
4. notes some of the taonga species are part of a state of the environment fish distribution monitoring programme, that will be reported to the community, and form the basis of collaboration with iwi in the region
5. notes the fishery records for Taranaki are high reflecting the Council and others' efforts that will underpin policy development.

Littlewood/Jordan

5. Stage 2 Havelock North Drinking Water Inquiry

- 5.1 The memorandum outlining the main findings from Stage 2 of the Havelock North Drinking Water Inquiry, and updating the Committee on the implications of the Inquiry findings for the Council, was received and discussed.

Recommended

That the Taranaki Regional Council:

1. receives the memorandum *Stage 2 Havelock North Drinking Water Inquiry*
2. notes that work is underway to review systems and processes in regard to the findings of the Inquiry and our own review.

McIntyre/Littlewood

6. Proposed Coastal Plan for Taranaki

- 6.1 Mrs N West, Policy Analyst, spoke to the memorandum presenting the *Proposed Coastal Plan for Taranaki* and the accompanying *Section 32 Evaluation Report - Proposed Coastal Plan for Taranaki* seeking Members' agreement to publically notify the Proposal Coastal Plan. A presentation on the content of the Proposed Plan and a demonstration of the interactive map portal developed to allow online inspection of the maps associated with the Proposed Plan was provided in support of the agenda item.
- 6.2 It was noted and discussed the possibility of aligning the Council's emerging e-planning processes with other Taranaki local authorities, in particular the New Plymouth District Council, with a view to aligning district and regional plans access in the future. Council staff have been in discussions with district council officers regarding this, but the idea requires further investigation.

Recommended

That the Taranaki Regional Council:

1. receives this memorandum, the *Proposed Coastal Plan for Taranaki* and the *Section 32 Evaluation Report Proposed Coastal Plan for Taranaki*
2. notes the feedback received from targeted consultation on the *Draft Coastal Plan for Taranaki* and the subsequent additional work and investigations undertaken
3. confirms that it is satisfied that the policies, rules and methods set out in the *Proposed Coastal Plan for Taranaki* are the most appropriate way to achieve the objectives of the Plan
4. agrees to publically notify the *Proposed Coastal Plan for Taranaki* pursuant to Clause 5 of the First Schedule of the RMA, on or around 24 February 2018
5. notes that the rules within the *Proposed Coastal Plan for Taranaki* will have immediate legal effect upon public notification pursuant to Part 86B(3) of the RMA.

Lean/Walker

7. Public Excluded

In accordance with section 48(1) of the *Local Government Official Information and Meetings Act 1987*, it is resolved that the public is excluded from the following part of

the proceedings of the Policy and Planning Committee on Tuesday 30 January 2018 for the following reason/s:

Item 8 – Confirmation of Confidential Minutes

THAT the public conduct of the whole or the relevant part of the proceedings would be likely to result in the disclosure of information where the withholding of the information is necessary to enable the Council to carry out, without prejudice or disadvantage, commercial activities or negotiations.

Item 9 – Ministry for the Environment Report

THAT the public conduct of the whole or the relevant part of the proceedings would be likely to result in the disclosure of information where the withholding of the information is necessary to protect information, where the making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information continue to be supplied.

MacLeod/Lean

There being no further business, the Committee Chairperson Councillor N W Walker, declared the Policy and Planning Committee meeting closed at 12.35pm.

Confirmed

Chairperson _____

N W Walker

Date

13 March 2018

Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy and Planning Committee**

**Subject: Key Native Ecosystems programme
update 2018**

Approved by: S R Hall, Director - Operations
B G Chamberlain, Chief Executive

Document: 2011504

Purpose

The purpose of this memorandum is to present for Members' information an update on the identification of twelve new Key Native Ecosystem (KNE) sites. Officers will be making a presentation on the overall programme at the meeting.

Executive summary

- The Council's *Biodiversity Strategy for the Taranaki Regional Council* ('the Biodiversity Strategy') sets out four strategic priorities, one of which relates to the Council focusing on protecting KNEs on privately owned land.
- KNEs refer to terrestrial (land) areas identified by the Taranaki Regional Council as having regionally significant ecological values and that are targeted for protection.
- The Council's protection of KNEs is ongoing. Officers work with interested landowners, including iwi, and community groups to promote the voluntary protection and enhancement of ecological values associated with the sites. All landowners can seek an assessment of their particular site for potential involvement in the KNE programme. When these opportunities arise, new sites are assessed in relation to their regional significance, and/or existing information and databases updated.
- Protection of KNEs is part of the Council's **non-regulatory** work. Protection is implemented through the preparation and implementation of biodiversity plans, the provision of environmental enhancement grant funding, and/or assisting with pest and weed control.
- Council officers have recently investigated a further twelve sites as noted in this memorandum and recommend they be adopted as a KNE. All the sites have been assessed as significant in accordance with criteria set out in the *Regional Policy Statement for Taranaki* (2010), i.e. rarity and distinctiveness, representativeness or ecological context.

- As at 20 February 2018, the Council has identified 252 KNEs (covering approximately 122,034 hectares), which includes conservation land. Of the 289,000 hectares of indigenous vegetation in the region, approximately 64,000 hectares is in private ownership. A total of 199 of the KNE sites (covering approximately 12,120 hectares), are partially or completely privately owned, representing almost 19% of the targeted vegetation. KNE sites target the most vulnerable and at risk types of indigenous vegetation and do not cover all indigenous vegetation types. The twelve sites referred to in this memorandum comprise 70 ha.

Recommendations

That the Taranaki Regional Council:

1. receives this memorandum and the attached inventory sheets for Campbell's Bush; Mangamingi Bush Reserve; The Two Sisters; Whakamara; Fisher Family Bush; Rukumoana Reserve; QEII Covenants 5/06/011 & 5/06/031; Huiroa Reserve; Vujcich Kamahi Swamp Maire Forest; Willing's Woodlot; Jupp Covenant (Bean Dog's Bush) and Harlow Fern.
2. notes that the aforementioned sites have indigenous biodiversity values of regional significance and should be identified as Key Native Ecosystems.

Background

To assist it in giving effect to its statutory functions for indigenous biodiversity under the Resource Management Act 1991, the Council has recently reviewed and adopted the *Biodiversity Strategy for the Taranaki Regional Council* ('the Biodiversity Strategy'). The Biodiversity Strategy sets out four strategic priorities, one of which relates to the Council focusing on protecting KNEs on privately owned land.

The Council's management approach is to work with interested landowners and community groups, through provision of a property planning service and other assistance, in order to promote the voluntary protection and enhancement of ecological values associated with these sites. The identification of KNEs is ongoing. All landowners can seek an assessment of their particular site for potential involvement in the KNE programme. When these opportunities arise, new sites are assessed in relation to their regional significance, and/or existing information and databases updated.

In recent years, Council officers have worked with several iwi to assess and recommend sites for adoption as KNEs. Officers are currently working with hapu members at Parihaka to identify possible sites for the KNE programme.

Council officers have recently investigated twelve sites and recommend they be adopted as a KNE. The candidate sites are: Campbell's Bush; Mangamingi Bush Reserve; The Two Sisters; Whakamara; Fisher Family Bush; Rukumoana Reserve; QEII Covenants 5/06/011 & 5/06/031; Huiroa Reserve; Vujcich Kamahi Swamp Maire Forest; Willing's Woodlot; Jupp Covenant (Bean Dog's Bush) and Harlow Fern. All these sites have been assessed as significant in accordance with criteria set out in the *Regional Policy Statement for Taranaki* (2010), i.e. rarity and distinctiveness, representativeness or ecological context.

As at 20 February 2018, the Council has identified 252 KNEs (covering approximately 122,034 hectares), which includes conservation land. Of the 289,000 hectares of indigenous

vegetation in the region, approximately 64,000 hectares is in private ownership. A total of 199 of the KNE sites (covering approximately 12,120 hectares), are partially or completely privately owned, representing almost 19% of the targeted vegetation. KNE sites target the most vulnerable and at risk types of indigenous vegetation and do not cover all indigenous vegetation types. The twelve sites referred to in this memorandum comprise 70 ha.

KNE site inventory process

Identification of a site as a KNE does not have any extra bearing on the rules or controls that already apply to such sites in regional or district council plans. Identification of sites is undertaken by the Council to focus its **non-regulatory** efforts to work with and support landowners to protect biodiversity values on their land. Protection is implemented through the preparation and implementation of biodiversity plans, the provision of environmental enhancement grant funding, and/or assisting with pest and weed control.

The *2015–2025 Long Term Plan* includes, amongst other things, a target to maintain and regularly update the Council's Inventory of KNEs. Council officers have recently investigated and consulted with landowners to identify another twelve sites as KNEs. Copies of the inventory sheets for the new sites are **attached** to this item. Officers will be making a presentation at the meeting.

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*, the *Local Government Official Information and Meetings Act 1987*, 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 No. 1943764; 1946687; 1936226; 1955973; 1955992; 1959701; 1972861; 1972834; 1991213; 1955884; 1983587 and 1955945.

Campbell's Bush

At a glance

TRC Reference: BD/9576	LENZ:	C1.1a Chronically threatened
Ecological District: Matemateaonga	National:	Priority 1 – Threatened Land Environment
Land Tenure: District	Regional:	Key Native Ecosystem
Area(ha): 1.4	Regional Ecosystem Loss:	At risk 20-30% left
GPS: 1720227X & 5633703Y	Protection Status:	Local Government
Bioclimate Zone: Lowland	Catchment:	Tangahoe (348)
Habitat: Forest Remnant		

Ecosystem Type MF7.3: Tawa, pukatea, podocarp forest

General Description

Campbell's Bush is located on Sangster Road, Rawhitiroa, approximately 8kms east of Eltham in central Taranaki. The forest remnant is located within the Matemateaonga Ecological District and lies in the Tangahoe River catchment.

Campbell's Bush is a small (1.4ha) lowland forest remnant owned by the South Taranaki District Council as a Scenic Reserve. The bush remnant is only 900 metres west of the Rotokare Scenic Reserve and is within the Rotokare Reserve Trust 'halo' management area.

Ecological Features

Flora

The high canopy at Campbell's Bush is dominated by pukatea, tawa and swamp maire with occasional rewarewa and titoki. The understory is recovering well including species such as kawakawa, kanono, pigeonwood, mahoe and turepo and has become dense in places. Native ferns are well established in places and are establishing wider including shining spleenwort, sickle spleenwort, hen and chicken fern etc. Swamp maire (Regionally Distinctive) is present in good numbers and is notable for this site.

Fauna

The reserve will definitely be receiving spill over from the predator fenced Lake Rotokare Scenic Reserve and also benefiting from the halo pest animal control programme in this area. Tui were generally in numbers higher than usual for a small site. Bats are present at the Lake Rotokare reserve and may use this area in their wider foraging. Potential roost trees are also present. Good habitat exists for native reptiles and native freshwater fish which may include notable species. The habitat will contain a very diverse range of terrestrial invertebrates likely including notable species such as peripatus.

Ecological Values

Ecological context - High	The bush remnant provides good connectivity to other priority biodiversity projects in this area as it is only 900 metres west of the Rotokare Scenic Reserve and is within the Rotokare Reserve Trust 'halo' management area.
Rarity and Distinctiveness - Medium	Contains the 'Regionally Distinctive' swamp maire which is present in good numbers in the reserve.
Representativeness - High	Contains indigenous vegetation on a 'Chronically Threatened' LENZ environment (C1.1a) and is a remnant of an ecosystem type

(MF7-3 Tawa, pukatea, podocarp forest) that is considered At Risk as less than 30% remains in the region.

Sustainability - Positive In relatively good vegetative condition. Key ecological processes still influence the site. Under appropriate management it can remain resilient to existing or potential threats.

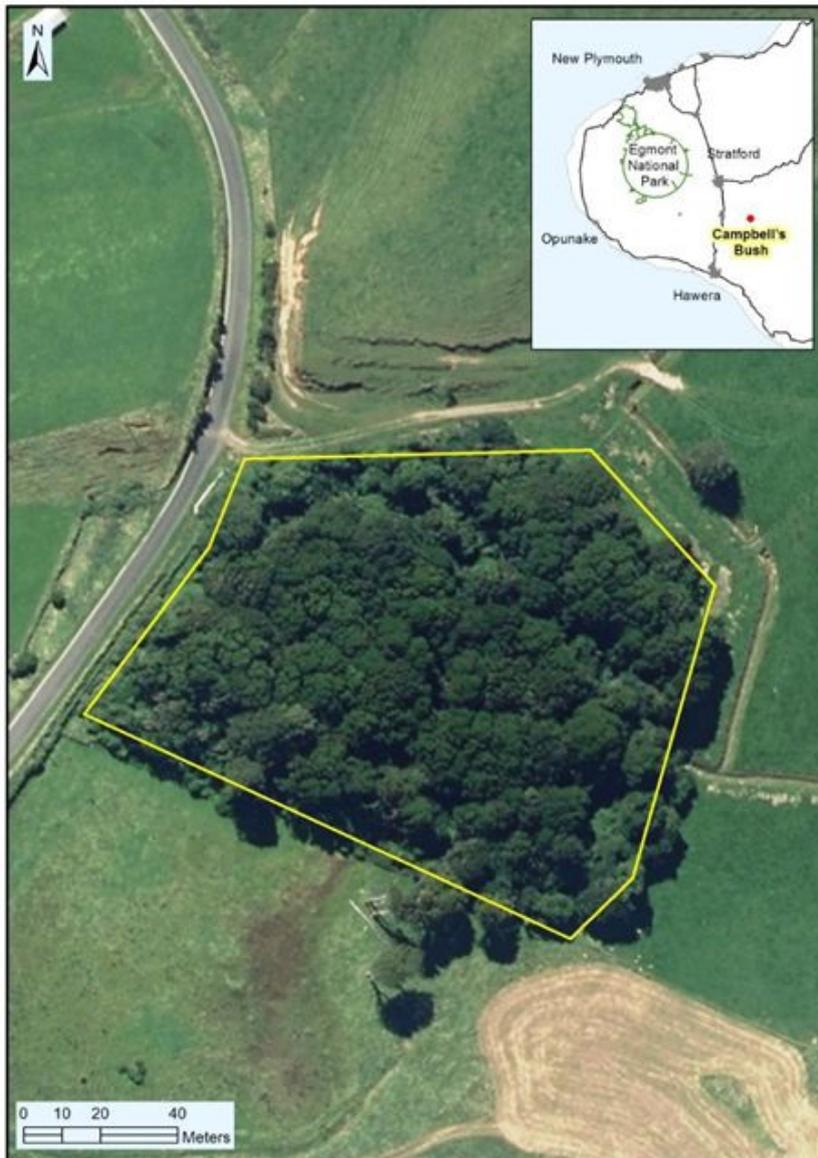
Other Management Issues

Habitat Modification - Low Edge effects and human activity are potential threats.

Herbivores - Medium Potential risk although currently well fenced and with on going possum control.

Predators - Medium Potential threat from rodents, mustelids, possums, hedgehogs and cats although currently managed as part of the Rotokare 'Halo' area.

Weeds - High Potential high risk although currently low numbers and confined to the forest margins.



Mangamingi Bush Reserve

At a glance

TRC Reference: BD/9577	LENZ:	F7.2a At risk
Ecological District: Matemateaonga	Regional:	Key Native Ecosystem
Land Tenure: District	Regional Ecosystem Loss:	At risk 20-30% left
Area(ha): 5.7	Protection Status:	Local Government
GPS: 1725285X & 5636166Y	Catchment:	Patea (343)
Bioclimate Zone: Lowland		
Habitat: Forest Remnant		

Ecosystem Type MF7: Tawa, kamahi, podocarp forest

General Description

The Mangamingi Bush Reserve is located 13.5kms east of Eltham in central Taranaki and is owned by the South Taranaki District Council. The reserve is a 5.7ha lowland bush remnant on a north facing slope and is located within the Matemateaonga Ecological District in the Patea River catchment.

Ecological Features

Flora

The old forest area of the Mangamingi Bush Reserve canopy is dominated by tawa with occasional matai, rimu, rewarewa and titoki. The understory is recovering and includes kawakawa, kanono, pigeonwood, mahoe, turepo and tree ferns. Native jasmine is particularly abundant and is scrambling on the ground and into the lower canopy. Native ferns are well established and dominate the ground cover. The planted margins of the reserve are a mix of well established natives such as koromiko, karamu, corokia, lacebark, kohuhu, marble leaf, lemonwood, broadleaf and wineberry. Rank grass dominates the groundcover in the open areas and native ferns are establishing under the plantings.

Fauna

A moderate number of native birds were observed including tui, kereru, bellbird, grey warbler, shining cuckoo and fantail. A single morepork was disturbed from a day roost on the day and others will be present. Native bats are present in the area and potential roost trees are also present. Good habitat exists for native reptiles including dense vegetation, epiphytes, loose bark, leaf litter, logs and ground cover and notable native reptiles are known in the area. The habitat will contain a diverse range of terrestrial invertebrates likely including notable species such as peripatus.

Ecological Values

Ecological context - High	The bush remnant provides important connectivity in a highly fragmented landscape to nearby priority biodiversity sites (2.5kms north east from the Totara's Block and 4kms north east from the Lake Rotokare Scenic Reserve).
Rarity and Distinctiveness - Medium	Contains good habitat for notable priority species such as native reptiles and invertebrates.
Sustainability - Positive	In relatively good vegetative condition. Key ecological processes still influence the site. Under appropriate management it can remain resilient to existing or potential threats.
Representativeness - Medium	Contains vegetation on 'At Risk' LENZ environment (F7.2a) and is a remnant of a regionally At Risk ecosystem type (MF7.3 Tawa,

kamahi, podocarp forest).

Other Management Issues

Habitat Modification - Medium	Damage evident from earlier vegetation clearance mainly confined to the front margin although planting has been undertaken for mitigation.
Herbivores - Medium	Potential risk although currently well fenced and possum sign appeared to be low.
Predators - Medium	Potential threat from rodents, mustelids, possums, hedgehogs and cats.
Weeds - Medium	Potential high risk although currently low numbers of invasive species mostly confined to the forest margins.



The Two Sisters

At a glance

TRC Reference: BD/9596	LENZ:	F5.2a Acutely threatened
Ecological District: North Taranaki	Local:	Significant Natural Area
Land Tenure: Private	National:	Priority 1 - Threatened Land Environment
Area(ha): 2.5	Regional:	Key Native Ecosystem
GPS: 1714808X & 5673547Y	Regional Ecosystem Loss:	Chronically threatened 10-20% left
Bioclimate Zone: Semi-Coastal	Catchment:	Onaero (398)
Habitat: Forest Remnant		

Ecosystem Type WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest

General Description

The Two Sisters forest remnant is located off Otaraoa Road approximately 5 kilometres southeast of Tikorangi in North Taranaki. The remnant lies in the North Taranaki Ecological District and Onaero River catchment. The small (2.5ha) forest remnant is made up of a mainly north east facing hill slope of semi coastal / lowland forest with a dominant canopy of tawa.

Ecological Features

Flora

The forest canopy dominated by tawa with occasional miro, pukatea, rewarewa, pigeonwood and emergent rimu. Puriri and kohekohe are also present although only very occasionally. The understory is dominated by kanono with a mix of other species present including pate, pigeonwood, mahoe and tree ferns. Ground cover, climbers and epiphytes are common. Notable flora species may be present including Tawhirikaro.

Fauna

Native birds present include kereru, tui, bellbird, silvereye, shining cuckoo, grey warbler, fantail, kingfisher and morepork. A small stream in the forest contains freshwater crayfish and may contain notable freshwater fish such as banded kokopu. There is very good habitat for a range of other notable native species including reptiles, bats and invertebrates.

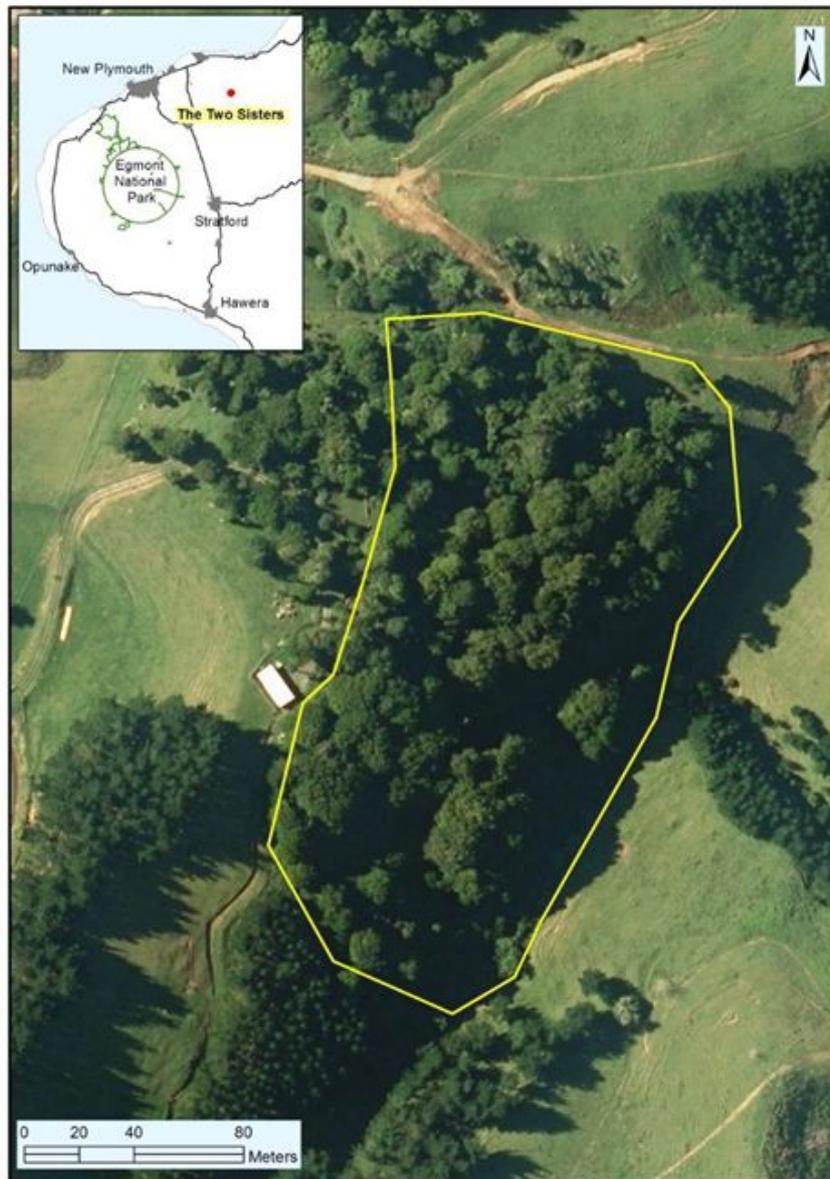
Ecological Values

Ecological context - High	Enhances connectivity between fragmented indigenous habitats in this area including Bushy Park QEII's, Mangahewa, Taramoukou and the Taramoukou Conservation Area.
Rarity and Distinctiveness - Medium	Provides habitat for and likely to contain 'Threatened', 'At Risk' or 'Regionally Distinctive' species including notable reptiles, freshwater fish and potentially native bats.
Representativeness - High	Contains vegetation on 'Acutely Threatened' land environment (F5.2a) and is a remnant of an ecosystem type (WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest) considered 'Chronically Threatened' as less than 20% remains in the region.
Sustainability - Positive	In good vegetative condition and likely to recover well from

existing threats when fenced.

Other Management Issues

Habitat Modification - Medium	The habitat is vulnerable to modification although there are no immediate threats other than stock.
Herbivores - High	Stock have had an impact on some areas of the forest remnant although the site would recover well when fenced in the future.
Possum Self-help	The site is outside the current possum self-help program boundary although receives occasional possum control by the landowners. High possum numbers have the potential to impact on forest health.
Predators - Medium	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Weeds - Medium	Currently a low to medium threat at this site although potential to be a greater problem if established.



Whakamara

At a glance

TRC Reference: BD/9595	LENZ:	F5.2c Acutely threatened
Ecological District: Manawatu Plains	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 8.4	Regional Ecosystem Loss:	At risk 20-30% left
GPS: 1719503X & 5612751Y	Catchment:	Manawapou (347)
Bioclimate Zone: Semi-Coastal		Chronically threatened 10-20% left
Habitat: Forest Remnant		

Ecosystem Type MF7.3: Tawa, pukatea, podocarp forest
WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest

General Description

The Whakamara forest remnant is located on private land 9.5 kilometers south east of Hawera off the Whakamara Road. The remnant lies within the Manawatu Plains Ecological District and Manawapou Stream catchment. The 8.4 hectare forest remnant is made up of a steep south west facing gully and gully sidlings of an unnamed tributary of the nearby Otoki Stream. The remnant consists of a mix of older semi coastal / lowland forest with a dominant canopy of tawa and younger mixed regenerating native dominated by mahoe, tree ferns etc.

Ecological Features

Flora

The forest canopy of the older forest areas is dominated by tawa with occasional miro, maire, rewarewa, pigeonwood, karaka and titoki. The understory is dominated by kawakawa with a mix of other species present including pate, pigeonwood, mahoe and tree ferns. Ground cover is present through most of the remnant dominated by a mix of ferns and parataniwha in the wetter areas. The 'Regionally Distinctive' ngaio is present and notable for the site. Other notable flora species may also be present. Introduced plantation trees are also present particularly on the western margin and south west spurs of the gully.

Fauna

Native birds present include kereru, tui, bellbird, silvereye, shining cuckoo, grey warbler, fantail and kingfisher. Morepork are likely to be present. A small stream in the valley floor is very likely to contain notable freshwater fish such as banded kokopu. There is very good habitat for a range of other notable native species including reptiles and invertebrates.

Ecological Values

Ecological Context - Medium	Provides connectivity to other nearby habitats and other notable KNE in the area including Scott Bush and the Tarere Forest Extension.
Rarity and Distinctiveness - Medium	Contains the 'Regionally Distinctive' ngaio and provides habitat for other priority native fauna such as native fish and reptiles.
Representativeness - High	Contains vegetation on an 'Acutely Threatened' land environment (F5.2c) and is a remnant of ecosystems that are considered

Sustainability - Positive

'Chronically Threatened' (WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest) and 'At Risk' (MF7-3 Tawa, pukatea, podocarp forest) in Taranaki.

In good vegetative condition and likely to recover well from existing threats when completely fenced.

Other Management Issues

Habitat Modification - Medium

The habitat is vulnerable to modification and slumping from the road is evident.

Herbivores - Medium

Stock have had an impact on small accessible areas of the forest remnant although fenced and steep areas are intact.

Possum Self-help

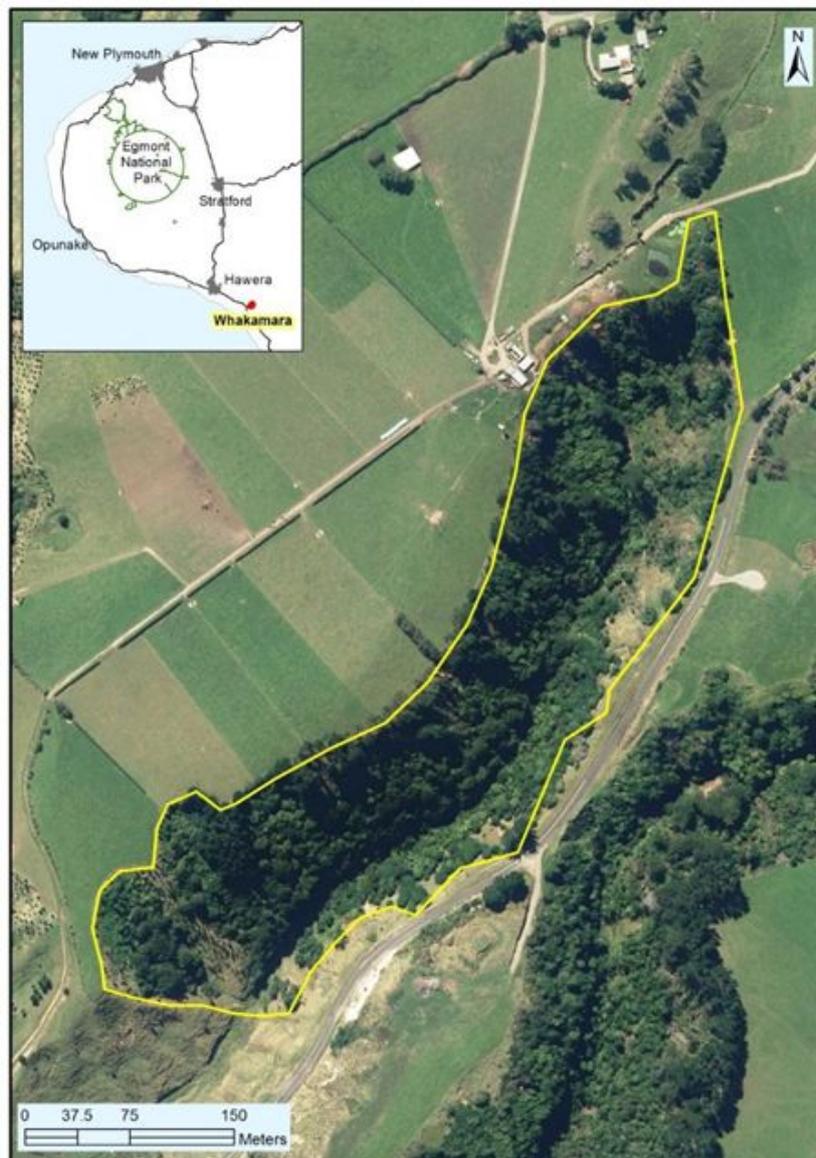
The area is close to but outside the possum self-help area.

Predators - Medium

Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.

Weeds - Medium

Currently a low to medium threat at the site.



Fisher Family Bush

At a glance

TRC Reference: BD/9593	LENZ:	F5.2a Acutely threatened
Ecological District: Egmont		F5.3b Not threatened
Land Tenure: Private	National:	Priority 1 - Threatened Land Environment
Area(ha): 3.84	Regional:	Key Native Ecosystem
GPS: 1679783X & 5647891Y	Regional Ecosystem Loss:	Reduced 30-50% left
Bioclimate Zone: Lowland		Less reduced >50% left
Habitat: Forest Remnant	Catchment:	Pungaereere (372)
Ecosystem Type	MF7.2: Rata, tawa, kamahi, podocarp forest	
	MF8.3: Kahikatea, rimu, kamahi forest	

General Description

The Fisher Family Bush forest remnant is located approximately 16 km north-east of Opunake off the upper Kahui Road. The site lies in the Egmont Ecological District and the Pungaereere Stream catchment. The lowland bush remnant covers 3.8ha and is currently fenced. The forest is in good condition with very good understory and ground cover.

Ecological Features

Flora

The forest canopy and understory is in very good condition due to the site being fenced. No large emergent podocarps are present although the main canopy is dominated by a mix of roughly equal sized rimu, kahikatea, miro, tawa, swamp maire, mahoe and pigeonwood. The understory is dominated by kanono with a mix of other species present including pate, five finger, pigeonwood, mahoe and tree ferns. Ground cover, climbers and epiphytes are common. The 'Regionally Distinctive' swamp maire is notable for the site and other notable flora species may be present.

Fauna

Native fauna observed on the initial visit include silvereye, grey warbler and fantail. Other native birds will also be present or use the forest in their foraging area including tui, kereru and bellbird. A small stream in the forest will contain freshwater crayfish and may contain notable freshwater fish such as banded kokopu. There is very good habitat for native reptiles and notable species may be present.

Ecological Values

Ecological context - High	Part of a mosaic of small habitats in a unique area of lahar deposits on the western ring plain. Nearby priority habitats include the Kahui Road Wetland and Egmont National park. Surrounded by top priority representative ecosystems and likely to have been accidentally overlooked.
Rarity and Distinctiveness - Medium	Contains the 'Regionally Distinctive' swamp maire. Provides habitat for and likely to contain other notable species including notable native fish and reptiles.
Representativeness - High	Contains vegetation on 'Acutely Threatened' (F5.2a) and 'Not Threatened' (F5.3b) land environments. Is a remnant of 'Less Reduced' (MF7-2) and 'Reduced' (MF8-3) ecosystem type.

Sustainability - Positive

In very good vegetative condition and likely to remain resilient to existing or potential threats.

Other Management Issues

Habitat Modification - Medium

Currently fenced and in good condition. Potential medium risk from stock breach and human modification.

Herbivores - High

Potential threat from cattle if fences were breached although currently a low threat.

Possum Self-help

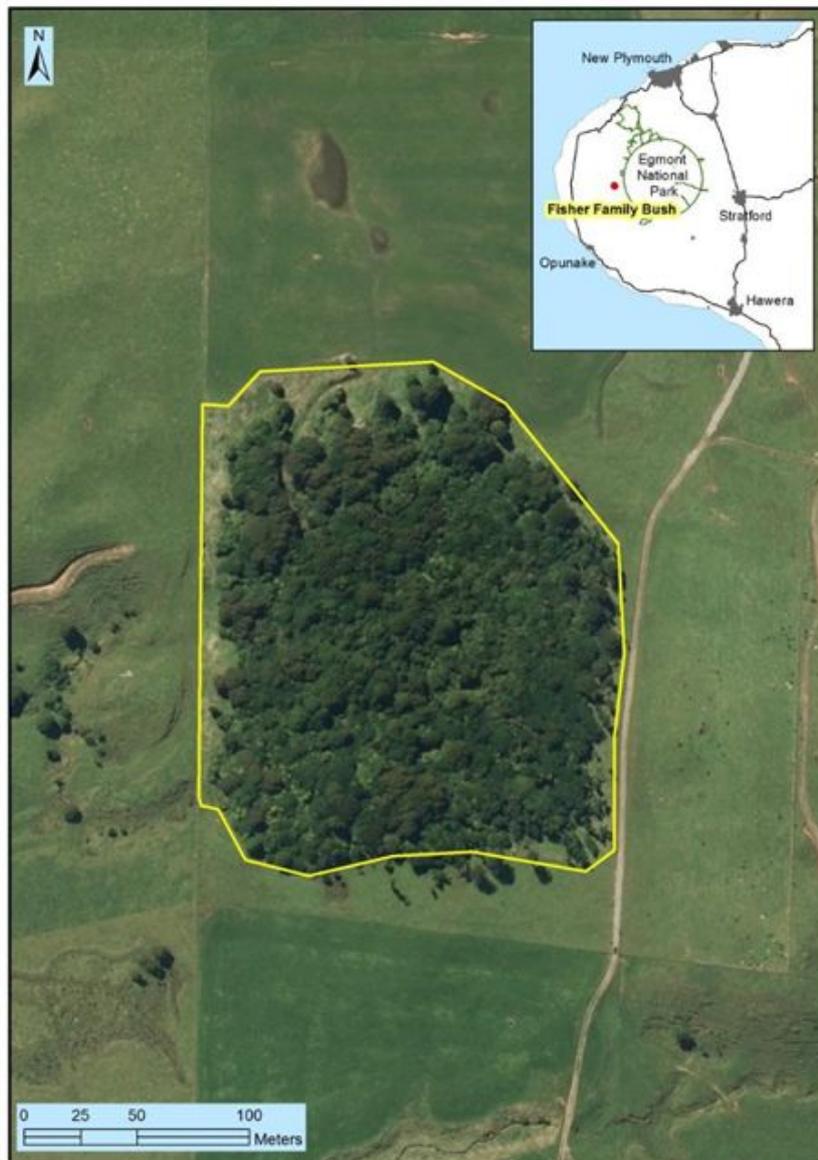
Within the possum self area and part of the Egmont National park buffer zone.

Predators - Medium

Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.

Weeds - Medium

Weed species observed include African clubmoss, black berry and wild cherry tree. Weed threats are currently medium to low although control may be needed in future.



Rukumoana Reserve

At a glance

TRC Reference: BD/9599	LENZ:	F1.1b Not threatened
Ecological District: Matemateaonga	Regional:	Key Native Ecosystem
Land Tenure: District		Close proximity to a representative ecosystem site
Area(ha): 5.56	Regional Ecosystem Loss:	At risk 20-30% left
GPS: 1727180X & 5636044Y	Protection Status:	Local Government
Bioclimate Zone: Lowland	Catchment:	Patea (343)
Habitat: Forest Remnant		

Ecosystem Type MF7.3: Tawa, pukatea, podocarp forest

General Description

The Rukumoana Reserve is located 15kms east of Eltham near Mangamingi in central east Taranaki. The KNE component of the reserve is made up of two forest remnants on opposing banks of the top end of Lake Rotorangi with a total size of 5.56ha. The southern remnant is located on a peninsula of the lake which has restricted access to larger browsers for many years. The peninsula is mainly tawa dominant old forest and the northern block is dominated by younger regenerating native forest amongst exotic plantation species. The reserve lies in the Matemateaonga Ecological District and Patea River catchment.

Ecological Features

Flora

The reserve contains a very good example of lowland forest for this area. The canopy of the old forest peninsula is dominated by tawa with a mix of rimu, miro, matai, maire, pukatea, rewarewa, titoki etc. The understory and ground cover of the peninsula is intact and diverse and reflects a long period of ground browser exclusion (potentially dating back to the formation of the lake in 1984). The northern forest remnant is mainly regenerating native mixed with an area of plantation forest.

Fauna

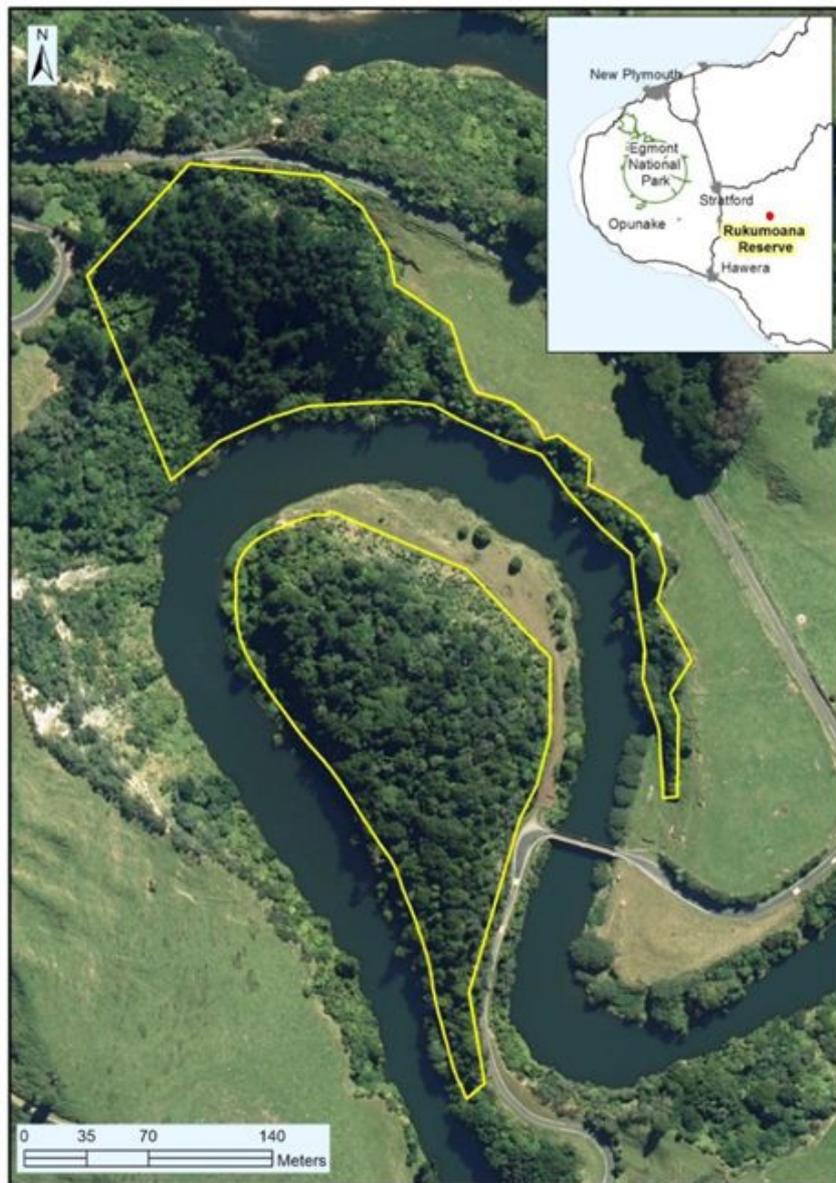
Native birdlife recorded in and around the reserve include kereru, grey warbler, fantail, tui, bellbird, kingfisher and silvereye. There is good habitat throughout the remnants for other notable native fauna such as reptiles and invertebrates. The small portion of Lake Rotorangi between the two forest remnants is excluded from the KNE boundary.

Ecological Values

Ecological context - High	Provides greater connectivity to nearby priority habitats including the Mangamingi Bush Reserve and Omoana Bush. Connected to a representative ecosystem site.
Representativeness - Medium	Contains vegetation on a 'Not Threatened' (F1.1b) land environment. Is a remnant of an ecosystem considered 'At Risk' (MF7-3) in Taranaki. Less than 30% of the pre-European extent of this ecosystem type remains in the region.
Sustainability - Positive	In very good vegetative condition and likely to remain resilient to existing or potential threats.
Rarity and Distinctiveness - Medium	Provides habitat for and likely to contain notable species including native birds, bats, reptiles and invertebrates.

Other Management Issues

Habitat Modification - Medium	Potential habitat modification if exotic forest was harvested on the northern remnant.
Herbivores - High	The remnants are currently fenced where needed or are adjacent to the lake margin which is excluding stock and feral browsers. The site potentially remains vulnerable to ground browsers. The forest canopy would be vulnerable to possum browse if possum numbers were very high.
Predators - Medium	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Weeds - High	Weeds that are present have potential to impact on the site. High risk species present include old mans beard, wandering willy and cherry etc. The current spread of weeds is containable for these forest remnants.



QEII Covenants 5/06/011 & 5/06/031

At a glance

TRC Reference: BD/7035	LENZ:	F5.2a Acutely threatened
Ecological District: Egmont	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 4 – Threatened Species
Area(ha): 6.53	Regional:	Key Native Ecosystem
GPS: 1693006X & 5668166Y	Regional Ecosystem Loss:	Chronically threatened 10-20% left
Bioclimate Zone: Semi-Coastal	Protection Status:	QEII Covenant
Habitat: Forest Remnant	Catchment:	Te Henui (391)
Ecosystem Type	WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest	

General Description

QEII covenants 5/06/011 & 5/06/031 cover five separate forest remnants and are located near Hurworth approximately 4kms south of New Plymouth. The covenants are located in the Egmont Ecological District and lie in the Te Henui Stream catchment. The five tawa dominant semi coastal / lowland forest remnants range from 0.7ha to 2.16ha in size with a total area of 6.53ha. The covenants are in close proximity to each other and the three streamside remnants are connected by well established riparian vegetation.

Ecological Features

Flora

The five covenants contain very good examples of semi coastal / lowland forest (classified as an 'Acutely Threatened' forest ecosystem under LENZ environment F5.2a). The forest canopies are dominated by tawa with a mix of rimu, miro, pukatea, rewarewa, puriri, titoki, and kohekohe. The understory and ground cover is intact and diverse and reflects the long period of stock exclusion from these areas. Two of the five forest remnants contain some excellent examples of the 'At Risk' and spectacular kingfern.

Fauna

Native birdlife recorded in and around the covenants include the kereru, grey warbler, fantail, tui, kingfisher and shining cuckoo. Notable freshwater species are present in the small tributary and main stem of the Te Henui Stream including banded kokopu, shortjaw kokopu, koaro, longfin eel and redfin bully. Giant kokopu and inanga may also be present. There is good habitat throughout the remnants for other notable native fauna such as reptiles and invertebrates.

Ecological Values

Sustainability - Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The site has the additional benefit of being formally protected.
Ecological context - High	Provides core habitat for 'Threatened', 'At Risk' and 'Regionally Distinctive' flora and fauna. Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the MS & FA Morris Reserve and Upper Mangaotuku covenants.
Representativeness - High	Contains vegetation on 'Acutely Threatened' land environment

(F5.2a) and is a remnant of an ecosystem type (WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest) considered 'Chronically Threatened' as less than 20% remains in the region.

Rarity and Distinctiveness - High Contains the 'Threatened' shortjaw kokopu and 'At Risk' koaro, redfin bully, longfin eel and kingfern. Also contains the 'Regionally Distinctive' banded kokopu and other notable species may be present.

Other Management Issues

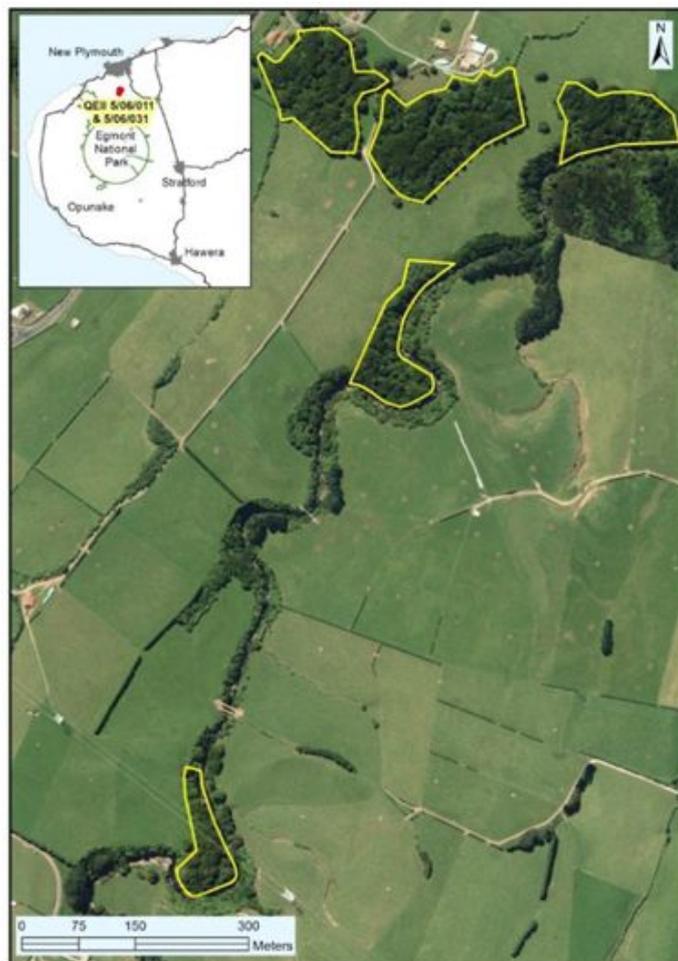
Habitat Modification - Low Protected by QEII covenant conditions.

Herbivores - High All remnants are currently fenced and stock proof although vulnerable to stock browsing if fences were breached. The forest canopy would be vulnerable to possum browse if possum numbers were high.

Possum Self-help The site is within the possum self help area.

Predators - Medium Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.

Weeds - High Weeds that are present have good potential to impact on the site. High risk species present include wandering willy, woolly nightshade, ivy, bamboo, cherry etc. The current spread of weeds is containable for these forest remnants.



Huiroa Reserve

At a glance

TRC Reference: BD/9600	LENZ:	H3.1b Acutely threatened
Ecological District: Matemateaonga		F7.2a At risk
Land Tenure: District		F5.2a Acutely threatened
Area(ha): 1.7	National:	Priority 1 - Threatened Land Environment
GPS: 1726384X & 5654391Y		Priority 4 - Threatened Species
Bioclimate Zone: Lowland	Regional:	Key Native Ecosystem
Habitat: Forest Remnant	Regional Ecosystem Loss:	At risk 20-30% left
	Protection Status:	Acutely Threatened <10% left
	Catchment:	Local Government
		Patea (343)
Ecological Type	MF7.3: Tawa, pukatea, podocarp forest	
	WF8: Kahikatea, pukatea forest	

General Description

The Huiroa Reserve forest remnant is part of the Stratford District Council owned Huiroa Domain and is located near Huiroa approximately 17kms north east of Stratford in central Taranaki. The 1.7ha forest remnant lies in the Matemateaonga Ecological District and Patea River catchment. The forest is situated on a small low hill top and slopes just above the main valley floor and generally runs from north to south from Makuri road. The forest canopy is dominated by tawa. A good understory and ground cover is present due to the exclusion of ground browsers for many years.

Ecological Features

Flora

The reserve contains a good example of cutover lowland forest (classified as an 'Acutely Threatened' environment under LENZ environment F5.2a & H3.1b). The forest canopy is dominated almost completely by tawa with a small mix of rimu, miro, rewarewa, titoki and matai. The understory and ground cover is intact and reasonably diverse and reflects the long period of stock exclusion from the area. Plantation species (blackwoods) are present on the western and northern forest margins and provide additional wind protection to the forest.

Fauna

Native birdlife recorded in and around the covenants include the kereru, grey warbler, fantail, tui, kingfisher and shining cuckoo. Notable 'At Risk' bird species using the remnant as part of their wider habitat include the New Zealand falcon and long-tailed cuckoo. There is good habitat throughout the remnants for other notable native fauna such as reptiles, invertebrates and potentially native bats.

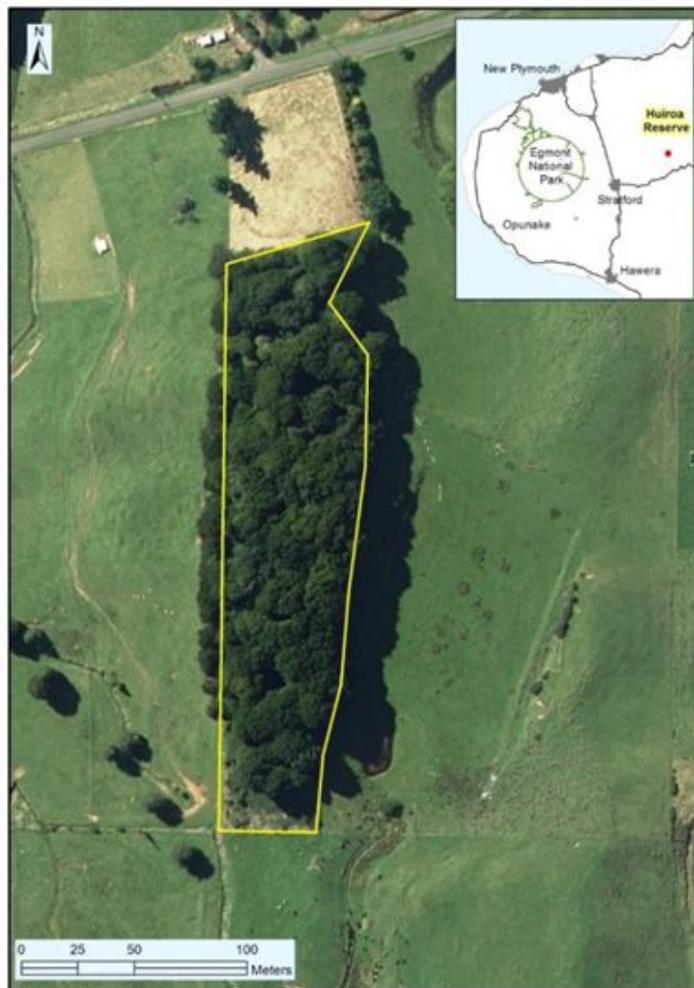
Ecological Values

Ecological Context - Medium	Enhances connectivity between fragmented indigenous habitats in the area.
Rarity and Distinctiveness - Medium	Provides habitat for 'At Risk' species such as the New Zealand falcon and long-tailed cuckoo. Likely to contain other notable native fauna such as reptiles, invertebrates and potentially native bats.

Representativeness - High	Contains vegetation on 'Acutely Threatened' (H3.1b & F5.2a) and 'At Risk' (F7.2a) land environments. Is a remnant of an ecosystem type (MF7.3: Tawa, pukatea, podocarp forest) considered 'At Risk' as less than 30% remains in the region. Also contains a small area of an ecosystem type (WF8: Kahikatea, pukatea forest) considered 'Acutely Threatened' as less than 10% remains in the region.
Sustainability - Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.

Other Management Issues

Habitat Modification - Low	Classified as a recreation reserve. Likely to have lost emergent podocarps in very early years of land clearance in the area.
Herbivores - High	Potential risk to the forest understory and ground cover from ground browsers. Potential risk to the forest canopy if possum numbers reach high levels over a long period.
Predators - Medium	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Weeds - High	Weeds that are present (especially ivy) have high potential to impact on the site. The current spread of weeds is containable and mainly confined to the forest margins.



Vujcich kamahi swamp maire forest

At a glance

TRC Reference: BD/9592	National:	Priority 2 – Sand Dunes and Wetlands
Ecological District: Egmont		Priority 4 – Threatened Species
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 15	Regional Ecosystem Loss:	Reduced 30-50% left
GPS: 1700477X & 5654827Y	Catchment:	Waitara (395)
Bioclimate Zone: Lowland		
Habitat: Forest Remnant/Wetland		

Ecosystem Type MF8.2: Rimu, rata, kamahi forest

MF8.3: Kahikatea, rimu, kamahi forest

General Description

Forest remnant/swamp forest located at the end of Durham road bordering Egmont National Park. Approx. 15ha of cut over forest with a high proportion of wetland forest containing a significant number of swamp maire trees. The site borders the Maketawa stream to the south which provides habitat for Whio (Blue duck). The site provides connectivity between the national park and additional forest habitat along the Maketawa stream.

Ecological Features

Flora

The forest remnant has a canopy made up of kamahi, rimu, tawa, rewarewa and hinau with significant numbers of 'regionally distinctive' swamp maire trees in the wetter areas. There are emergent northern rata, most of which are now dead due to previous damage caused by possums. The disturbed edges of the remnant are dominated by tree fuchsia and wineberry. The 'at risk' and 'regionally distinctive' kirks daisy (*Brachyglottis kirkii* var. *kirkii*) is present.

Fauna

Birds found at the site include tui, bellbird, grey warbler, tomtit, fantail, and kereru. The Maketawa stream which boards the site to the south provides habitat to Whio (blue duck) and has been a known breeding site in the past. Whio are classified as 'Threatened - Nationally Vulnerable'. The site is also visited by the 'regionally distinctive' New Zealand Falcon. There is adequate habitat for terrestrial and arboreal reptile species ranging from deep leaf litter, logs on the forest floor, epiphytes in the canopy and abundant foliage. No records are known for the site although reptiles will be present and may include threatened or regionally distinctive species. Recent surveys appear to have located long-tailed bats in the national park and there is good habitat for bats at this site. Native fish found at the site include shortjaw kokopu, koaro, long fin eels and possibly red finned bullies.

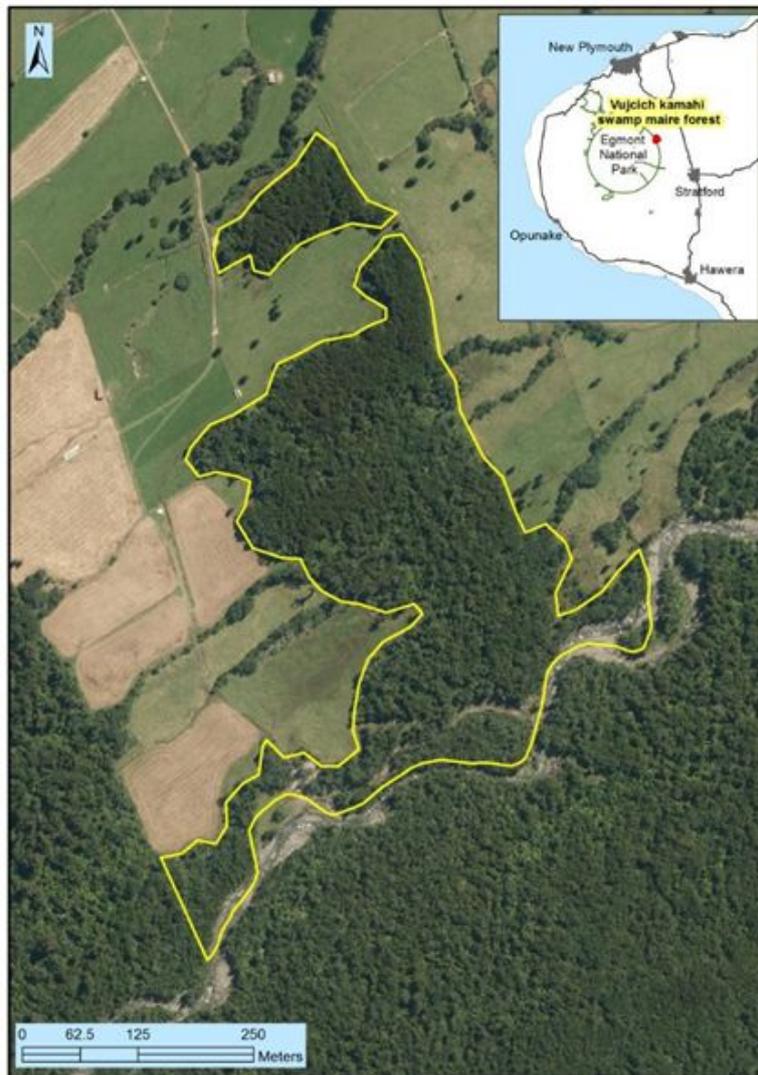
Ecological Values

Sustainability - Positive	In relatively good vegetative condition. Key ecological processes still influence the site and, under appropriate management, it can remain resilient to existing or potential threats
Ecological Context - Medium	Is in close proximity to Egmont National Park. Provides additional habitat for fauna species outside the national park and connectivity along the Maketawa stream.

Rarity and Distinctiveness - High	The site provides nesting habitat for the 'Threatened - Nationally Vulnerable' Whio (blue duck) along the Maketawa stream and has a significant number of the 'regionally distinctive' swamp maire trees. The 'regionally distinctive' kirks tree daisy is also present.
Representativeness - Medium	Contains vegetation associated with land environment H4.1a. The ecosystem type represented here (MF8-3, Kahikatea, rimu, kamahi forest) is considered 'Reduced' from its former extent in Taranaki with only around 35% remaining.

Other Management Issues

Predators - High	Mustelids, rats, cats, hedgehogs and possums will be present.
Weeds - Low	Few weeds are present, weeds are only affecting the bush edge and regenerating areas.
Herbivores - Medium	Possums are present at low to medium densities.
Habitat Modification - Medium	The site is unfenced. Grazing by wandering livestock causes damage to the understory and seedlings, particularly around the margins.



Willing's Woodlot

At a glance

TRC Reference: BD/9597	LENZ:	F5.2b Acutely threatened
Ecological District: Egmont	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 1.5	Regional Ecosystem Loss:	Chronically threatened 10-20% left
GPS: 1678630X & 5662821Y	Catchment:	Katikara (382)
Bioclimate Zone: Semi-Coastal		
Habitat: Forest Remnant		

Ecosystem Type WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest

General Description

Willing's Woodlot is a 1.5ha remnant of semi-coastal forest dominated by tawa, kohekohe, rewarewa, hinau and rimu with pukatea in the bottoms of the gullies. The site consists of the heads of two separate gullies in the katikara stream catchment. The site is located approximately 3km east of Okato in the Egmont ecological district. The site provides good connectivity to other Key Native Ecosystems in the area including Tom and Dons Bush, and Maitahi wetlands.

Ecological Features

Flora

The site is a remnant of semi-coastal forest and the canopy is dominated by tawa, kohekohe, rewarewa, hinau and rimu with pukatea in the bottoms of the gullies. The understory is made up of a diverse range of ferns along with mahoe, pigeonwood, kawakawa, and pate in the wetter areas.

Fauna

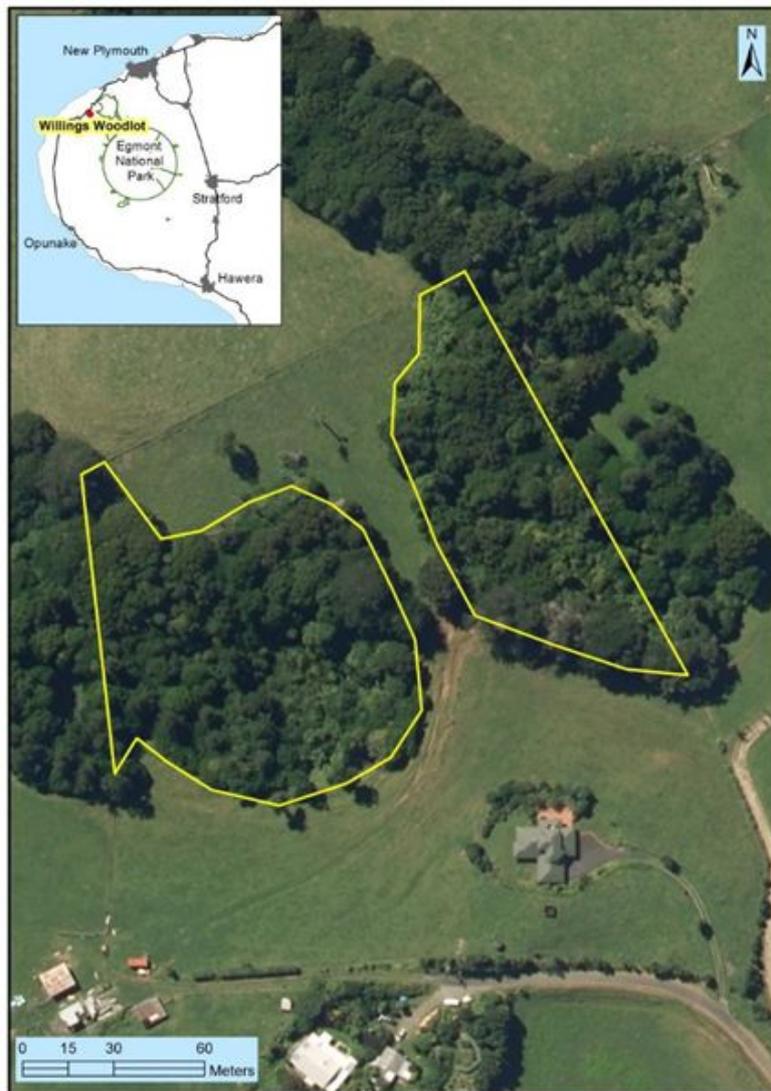
Willing's Woodlot provides habitat for a variety of native forest birds including New Zealand pigeon/kereru, bellbird/korimako, tui, shining cuckoo, North Island fantail/piwakawaka and silvereve/tauhou. Other native and notable fauna are also likely to be present including native lizards.

Ecological Values

Rarity and Distinctiveness - Medium	No threatened species or species uncommon in Taranaki have been recorded from this site to date.
Representativeness - High	Contains indigenous vegetation on F5.2b – an 'Acutely Threatened' LENZ environment and is a good remnant of a Chronically Threatened semi coastal ecosystem type in Taranaki (WF13 Tawa, kohekohe, rewarewa, hinau, podocarp forest)
Ecological Context - Medium	Close to and interconnected with other small forest remnants and riparian vegetation in vicinity.
Sustainability - Positive	In good vegetative condition. Key ecological processes still influence the site. Under appropriate management, it can remain resilient to existing or potential threats.

Other Management Issues

Predators - High	Possums, mustelids, rats and mice.
Weeds - Low	Few problem weeds are present at the site. Some woolly nightshade is present on the neighbouring property.
Habitat Modification - Medium	Landowners are working with the QEII trust to covenant the site.
Possum Self-help	The remnant is within the PSH area.



Jupp Covenant (*Bean Dog's Bush*)

At a glance

TRC Reference: BD/9598	LENZ:	F1.1b Not threatened
Ecological District: North Taranaki		F5.2a Acutely threatened
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 12	Regional Ecosystem Loss:	Chronically threatened 10-20% left
GPS: 1713218X & 5673740Y	Catchment:	Waitara (395)
Bioclimate Zone: Semi-Coastal		
Habitat: Forest Remnant		
Ecosystem Type	WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest	

General Description

Jupp Covenant (*Bean Dog's Bush*) is located on privately owned land on Otaraoa road, 10km south of Waitara. The site is a 12 ha remnant of semi-coastal tawa, kohekohe, rewarewa, hinau, podocarp forest on a slope bordered by a small stream on one side and the Waitara river on the other. The forest remnant provides good connectivity to other habitats in the nearby area including the Bushy Park and Mangahewa KNE's.

Ecological Features

Flora

The canopy of the bush remnant is dominated by rewarewa, pukatea, tawa and rimu. A variety of native vines and epiphytes are present. The understory is in reasonable condition and contains mahoe, pigeonwood, hangehange, nikau, pate, parataniwha and numerous ground and tree ferns. The site contains the 'regionally distinctive' fern *Deparia* (*Deparia petersenii* subsp. *congrua*).

Fauna

Good birdlife is present in the remnant including, kereru, grey warbler, bellbird, tui and fantail. The remnant provides good habitat for native freshwater fish and it is likely that notable species would be present. There is adequate habitat for terrestrial and arboreal reptile species ranging from deep leaf litter, logs on the forest floor, epiphytes in the canopy and abundant foliage. No reptile records are known for the site although reptiles will be present and may include threatened or regionally distinctive species.

Ecological Values

Ecological Context - Medium	Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the Bushy Park KNE, Mangahewa KNE and Tikorangi Whitehead KNE.
Sustainability - Positive	Key ecological processes still influence the site. Under appropriate management, it can remain resilient to existing or potential threats.
Rarity and Distinctiveness - Medium	The site contains the 'regionally distinctive' fern <i>Deparia</i> (<i>Deparia petersenii</i> subsp. <i>congrua</i>).
Representativeness - Medium	The ecosystem type is classified as WF13, Tawa, kohekohe, rewarewa, hinau, podocarp forest of which there is only 16% remaining in Taranaki. Contains a small amount of indigenous

vegetation classified as an 'Acutely Threatened' (F5.2a) LENZ environment.

Other Management Issues

Weeds - Medium	One large infestation of Japanese honeysuckle is the priority for control. Some scattered areas of Tradescantia (wandering willy) and woolly nightshade is also present.
Predators - High	The landowner does possum control but a more comprehensive predator control network would greatly benefit the bush remnant.
Herbivores - High	Goats have been recorded from the site and controlled by the landowner in the past. The site would greatly benefit from secure fencing and permanent stock exclusion.
Habitat Modification - Medium	The land owner is working with the QEII trust to protect the remnant through a covenant.



Harlow Fern

At a glance

TRC Reference: BD/9601	LENZ:	F7.2a At risk
Ecological District: North Taranaki	Regional:	Key Native Ecosystem
Land Tenure: Private	Regional Ecosystem Loss:	At risk 20-30% left
Area(ha): 6	Catchment:	Waitara (395)
GPS: 1719654X & 5650833Y		
Bioclimate Zone: Lowland		
Habitat: Forest Remnant		

Ecosystem Type MF7.3: Tawa, pukatea, podocarp forest

General Description

The Harlow Fern forest remnant is located on private land approximately 10km north east of Stratford in central Taranaki in the North Taranaki Ecological District. The area consists of a 6.0 hectare mainly east facing hill slope and gully of cutover tawa dominant native forest. The site is in close proximity to other QEII covenants and Key Native Ecosystems including the Waiwiri Wetlands and other habitats in the area and lies within the Waitara River catchment.

Ecological Features

Flora

The forest canopy is mainly intact and is dominated by tawa with a mix of rimu, pukatea, rewarewa, miro, pigeonwood and mahoe present in places. The understory and ground cover is currently sparse for the majority of the site due to stock access although has good potential for recovery. The area contains indigenous vegetation associated with an 'At Risk' habitat under LENZ environment F7.2a. Remnants of indigenous habitats in At Risk environments are rare and are important refuges for native species.

Fauna

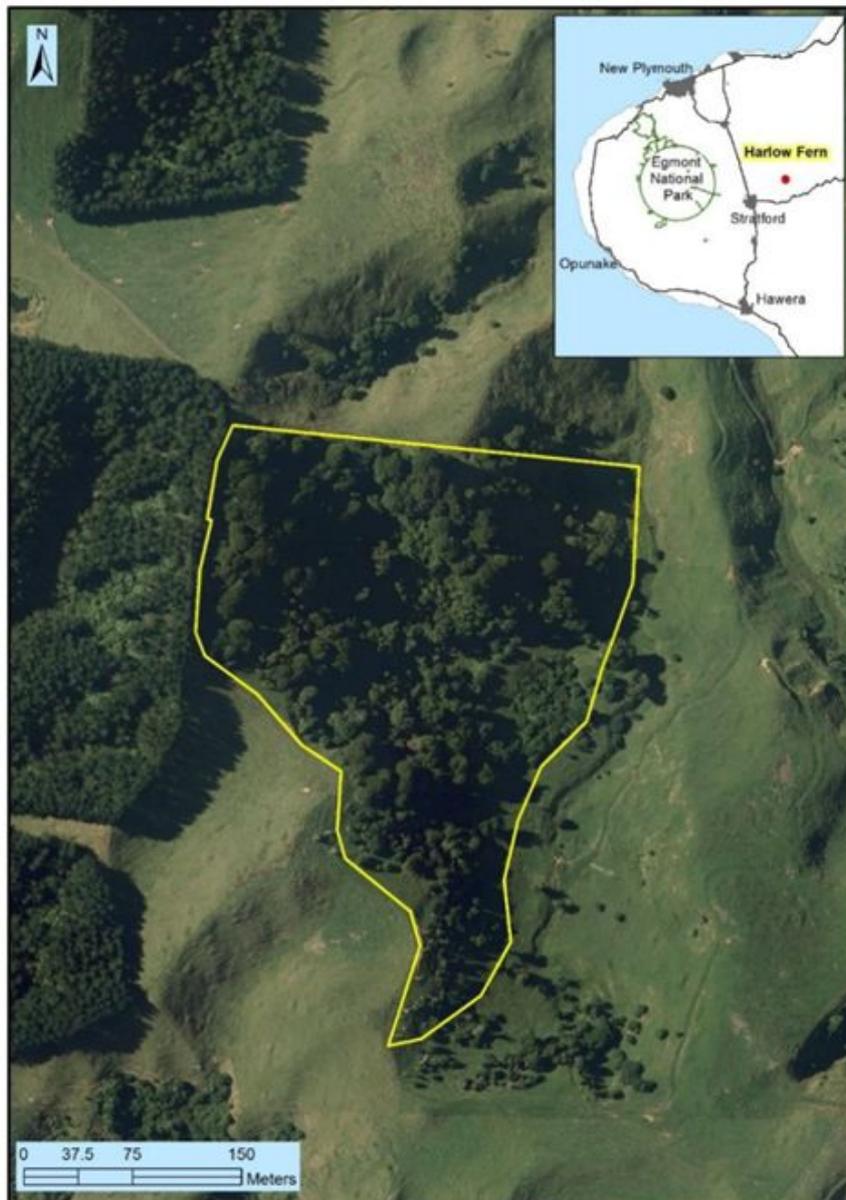
Native birds present include New Zealand falcon, kereru, tui, bellbird, silvereye, shining cuckoo, grey warbler, fantail, kingfisher and morepork. A very small stream in the forest will likely contain freshwater crayfish although is likely to be too small to contain notable freshwater fish. There is very good habitat for a range of other notable native species including reptiles, bats and invertebrates.

Ecological Values

Sustainability - Positive	In good vegetative condition and likely to recover well from existing threats when fenced.
Rarity and Distinctiveness - Medium	Provides habitat for the 'Threatened' New Zealand falcon and likely to contain other notable species including reptiles, invertebrates and potentially native bats.
Representativeness - Medium	Contains vegetation on 'At Risk' land environment (F7.2a) and is a remnant of an ecosystem type (MF7-3: Tawa, pukatea, podocarp forest) considered 'At Risk' as less than 20 - 30% remains in the region.
Ecological context - High	Enhances connectivity between fragmented indigenous habitats in this area including QEII covenants 5/06/276 and other nearby KNE's such as Ancell Farms, Waiwiri Wetlands and the John Whittington Stanley Road site.

Other Management Issues

Weeds - Low	Currently a low threat at this site with occasional Himalayan honeysuckle and barberry.
Predators - Medium	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Possum Self-help	The site is outside the current possum self-help program boundary although receives possum control by the landowner. High possum numbers have the potential to impact on forest health.
Herbivores - High	Stock and occasional feral goats have had an impact on areas of the forest understory and ground cover although the site would recover well if fenced and the goats were eradicated.
Habitat Modification - Medium	The habitat is vulnerable to modification although there are no immediate threats other than stock.



Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy and Planning Committee**

**Subject: Tiaki Te Mauri O Parininihi Trust –
Annual Update**

Approved by: S R Hall, Director - Operations

B G Chamberlain, Chief Executive

Document: 1945555

Purpose

The purpose of this memorandum is to introduce the annual report prepared by the Tiaki Te Mauri O Parininihi Trust (the Trust) on its operational activities through to August 2017.

The Trust chairman, Davis McClutchie, will be attending the Council meeting and will provide a brief presentation.

Executive summary

- The Trust represents a significant community-led biodiversity protection and enhancement work on land owned by Ngati Tama Trustee Limited, seaward of Mt Messenger.
- Parininihi is identified as a Key Native Ecosystem. It comprises approximately 2,000 hectares (formerly Whitecliffs Conservation Area) and is regionally significant for its unbroken sequence of coastal and semi-coastal lowland forest - the largest of its kind on the west coast of the North Island.
- Since its establishment in 2012, the Trust has been undertaking significant pest control work for the purposes of restoring the site's biodiversity values. A key achievement of the Trust has been the release of 20 Kokako, a threatened species, to their project area in May and July 2017.
- Recent monitoring carried out at the site has shown possum and rat numbers are being maintained to very low levels, and several pairs of recently re-introduced Kokako have been successful in fledging chicks in the protected environment.
- The Trust is supported by various funding partners, including the Taranaki Regional Council.
- The Council has been providing on-going support to the Trust, involving in-kind technical support as well as some financial assistance.

Recommendation

That the Taranaki Regional Council:

1. receives the memorandum and the report entitled *Tiaki te Mauri o Parininihi Trust – Progress report for the Taranaki Regional Council – August 2017*.

Background

The Tiaki Te Mauri O Parininihi Trust (the Trust) was established in 2012 for the purpose of restoring and protecting the values of Parininihi (formerly Whitecliffs Conservation Area) by undertaking a major long-term ecological management project that includes pest control, species recovery, and translocations.

Parininihi consists of 2000 hectares of coastal to inland forest, stretching from the dramatic Whitecliffs inland to Mt Messenger. This land was returned to Ngāti Tama as part of the treaty settlement with the Crown.

Ngāti Tama, the northern most Iwi of the eight recognised Taranaki Iwi, are tangata whenua and kaitiaki or guardians of Parininihi. These lands hold high cultural, historic and spiritual significance to Ngāti Tama. Ngāti Tama strive to maintain the health of Parininihi, and are working to control animal pests, and reintroduce species that have been lost. This iwi-led conservation project is the first of its kind in Taranaki and has involved Taranaki Regional Council (the Council) support since its early days.

Today, Ngati Tama Trustee Limited hold the title to the property, and the land is subject to a Conservation Covenant with the Department of Conservation (DOC). The Council has also identified Parininihi as a Key Native Ecosystem with regionally significant biodiversity values.

Parininihi presents an extensive, unbroken sequence of coastal and semi-coastal lowland forest; the largest of its kind on the west coast of the North Island. The entire Waipingao catchment is contained within Parininihi, which also supports niche wetlands and coastal habitats. In addition, offshore from the Parininihi coastline is the 1,800 hectare Parininihi Marine Reserve, including the unique sponge gardens of Pariokariwa Reef. There are public walking tracks through the project area which are maintained by the Department of Conservation, as well as a comprehensive network of discrete tracks created by the Trust to manage and protect the area.

In managing Parininihi, key areas of focus for the Trust have been:

- full ecosystem protection;
- protection of >40 rare and threatened species;
- sustained control of pests (mustelids, rats, possums, goats, feral cats, wasps and weeds);
- managed control of pigs and management of hunting and dog access to protect North Island brown kiwi and habitat generally;
- reintroducing kokako to the rohe of Ngati Tama (in 1999, the region's last known kokaho, 'Tamanui' was translocated from the Moki Forest to a DOC captive breeding programme);

- monitoring of ecological values and pest populations in response to ongoing and intensive management efforts; and
- media, events, education and facilitated visits and experiences at Parininihi.

Governance and management of the Trust is established, and contractors have been hired to undertake management works, with support from trustees and volunteers. The Trust also collaborates on wildlife management projects with other conservation groups in the region, such as the Lake Rotokare Scenic Reserve Trust and Taranaki Kiwi Trust. The Trust is an active member of Wild for Taranaki.

The Trust is supported by various funding partners, and partners that assist in other ways as set out in their update report, including; this Council, the DOC, the TSB Community Trust and Shell NZ Ltd.

The Council has entered into a Memorandum of Understanding (MOU) with the Trust and annually agrees upon a programme of in-kind support, where officers provide technical advice and field support. The Council's 2015/2025 Long Term Plan allows for the continuation of provision of grants to support community biodiversity initiatives and, alongside DOC, the Council have periodically contributed to regular cycles of 1080 application at Parininihi. This is part of Council's contribution to Wild for Taranaki initiatives in the region.

As part of their annual update presentation to funding partners, the Trust have prepared the attached report, which provides an overview of Trust activities leading up to August 2017. The report highlights key achievements, acknowledges contributors, summarises pest control, track work, monitoring, communications and identifies challenges faced by the Trust.

The Trust's Chairman, Davis McClutchie, will be making a brief presentation on their key objectives and work plan going forward, their challenges and constraints, and discuss how the priorities and objectives of the Trust and the Council align.

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 1956686: Tiaki Te Mauri O Parininihi Trust Progress Report August 2017

Tiaki te Mauri o Parininihi Trust – Progress report for the Taranaki Regional Council – August 2017

Key achievements of last six months:

- Completion and signing of Land Management Agreement between TTMOP and Te Runanga o Ngati Tama
- Completion of Health and Safety Plan that is compliant with current legislation
- Completion of application for permit for kokako translocation to Parininihi
- Granting of permit from DOC to translocate up to 40 kokako to Parininihi
- Successful release of 20 kokako into Parininihi on May 28th and July the 3rd



Summary of Funding/in-kind contributions/volunteer contribution to TTMOP Trust for last 6 months:

Contribution	Source of contribution:
<ul style="list-style-type: none"> • Eggs for pest control 	<p>Tegal Poultry</p>
<ul style="list-style-type: none"> • Planning/co-ordination help for kokako release, including attending meetings with TTMOP, organising TRC Staff and equipment, providing technical advice – particular thanks to Paul Prip for all his help with this. • Equipment for kokako release; 4 WD, radios, • Support staff for kokako release – Box carrier team leaders • Help with track preparation for kokako release • Storage of bait for our pest control operations • Work completed by TRC under our MOU – including assistance with maps, rat/possum control, implementation of TTMOP Pest Management Plan, Technical advice for Pest control Programme • Assistance with pest monitoring 	<p>Taranaki Regional Council</p>

<ul style="list-style-type: none"> • Support with organising and funding the 1080 aerial operation – for August/September 2017 	
<ul style="list-style-type: none"> • Technical advice with Health and Safety Plan • Funding contribution towards track preparation and safety upgrade for kokako Release • Funding for specialist advice in preparation of Land Management Agreement • Planning/co-ordination help for kokako Release, including attending planning meetings with TTMOP, organising Department of Conservation staff involvement and equipment, providing specialist advice • Equipment for kokako release; 4 WD, radios, tent • Myrtle Rust decontamination for both kokako releases • Support staff for kokako release – Box carrier team leaders, safety staff • Planning for 1080 aerial drop and liaison with adjacent land owners 	Department of Conservation – Ngamotu office
<ul style="list-style-type: none"> • 31,000 kokako Translocation Grant • \$4,000 towards cost of preparing Land Management Agreement 	TSB Community Trust
<ul style="list-style-type: none"> • Sponsorship and donations to the value of \$57,500 • Media help with kokako release, press releases updating website and facebook pages • Planning and commissioning of video of kokako Release 	Shell NZ Ltd
<ul style="list-style-type: none"> • \$10,000 funding for Health and safety training , implementation and equipment 	Kiwis for Kiwi
<ul style="list-style-type: none"> • 11,500 funding for storage container, traps, signage and volunteer 	International Volunteer HQ
<ul style="list-style-type: none"> • Governance/management/finances/fundraising/ad ministration/promotional and educational events • Attending Rotokare and Taranaki Mouna bird release events • Attending Kokako Specialist Group meetings • Planning and management of kokako catch and release weeks • Regular checks of Parininihi release site and walkway access • Providing 4WD vehicles and safety equipment for release weekends • Catering for kokako release weekends • Accommodating kokako pre-release • Regular report preparation for funders 	TTMOP Trustees
<ul style="list-style-type: none"> • Pest control, track maintenance, data entry, pest monitoring 	TTMOP Volunteers
<ul style="list-style-type: none"> • Support in Kiwi monitoring, , transport of kiwi eggs and kiwi • Kokako translocation – providing team leaders for box carrying teams • Attended kokako catching at Tiritiri Matangi • Support and advice with kokako releases 	Taranaki Kiwi Trust

<ul style="list-style-type: none"> • Technical advice and support in planning kokako release and transport of kokako to Parininihi • Providing vehicles and people to transport kokako from Tiritiri Matangi to Parininihi • Trustees and staff were team leaders for box carrying teams for kokako release 	Rotokare Scenic Reserve Trust
<ul style="list-style-type: none"> • Providing vehicles, catering, organisation, helping to catch kokako, transport of kokako to Parininihi, accommodation at marae, accommodation for kokako, helping us to safely transport the kokako into Parininihi 	Various volunteers who helped to organise and attend the kokako release
<ul style="list-style-type: none"> • Free office space for Trust meetings and meetings to organise kokako Release • Administrative support for kokako Release 	Te Runanga o Ngati Mutunga
<ul style="list-style-type: none"> • Funding for wasp control programme 	Wild for Taranaki

Summary of Pest Control Work Carried out by Trust

Task	Budget This Year	Actual This Year	Budget Next Year
Hectares Poisoned	1300 ha	1300 ha	1300 ha
Cat Traps	80	84	84
Stoat Traps	264	270	280
Possum Traps	160	170	170
Bait stations	1400	1400	1400
Rounds of Maintenance Baiting	4 rounds	4 rounds	1 – 2 rounds (depending on 1080 operation)
Rounds of Trap checks	12	12	12

Data management – data continues to be loaded into Main Pest Mapper – results for last year 1/7/2016 to 30/6/2017: See maps below

Cats	Possums	Rats	Stoats	Weasels
15	154	372	47	21

Goat Control – this continues to be undertaken by Back Country with funds from DOC through the Biofunds scheme (report attached)

Pig Control – Pig numbers continue to be higher than we would like but some of our volunteers have worked very hard to get the pig numbers as low as possible before the 1080 aerial drop this month

1080 Operation - The other achievement is that the 1080 aerial operation is now underway with the prefeed drop taking place mid August This has been organised by the local DOC staff – in particular Jared Coombes with help from Paul Prip from Taranaki Regional Council. The cost of this is being shared by DOC and TRC.



Track Maintenance and Strengthening

Task	Budget This Year	Actual This Year	Budget Next Year
Existing track System	80 km	82.5 km	84 km
New Track Construction/Safety Improvements	3 km	2.5 km	2 km

We have received Lotteries funding for new track work and for improving the safety of our Track network – the main problem with achieving this has been the weather over last summer.

Finding funding for Track maintenance continues to be a challenge.

Monitoring/Kiwi Work/Rare Plant Protection

Species	When (Dates: Month/Year)	What method (RTC, tracking tunnels, wax tags, trap catch rates)	Results (% RTC, % tracking)	Method detail? (No. traps/line, lines/ha, No. tunnels/line, lines/ha, etc)
Possum	1/7 2016 – 31/7/2017	Trap Catch Data	Average 10 per month autumn/winter 15 per month Spring/summer	Warrior Kill Traps on perimeter
Rats	April 2017	Tracking Tunnels	54%	12
Stoats	1/7 2016 – 31/7/2017	Trap Catch Data	Average 4 per month – all year round	275 - DOC 200/250s
Kiwi Monitoring	To be carried out next June/July	3 adult Male Kiwis currently with Transmitters – 6 eggs were lifted from Parininihi for the national ONE programme of which 4 were successfully raised. This work is carried out in association with Taranaki Kiwi Trust and Lake Rotokare Scenic Reserve Trust		
Kokako Monitoring	This is due to start in September this year – to be led by Dave Brydon. It involves an initial survey of the current location of the 20 released kokako (to be carried out by 4 people, plus TTMOP contractors from 10 th to 30 th September) There will then be further monitoring of nesting activity and sites later in the year.			
Myosotis programme	Bill Clarkson has been working hard to help protect and propagate the rare Myosotis found in Parininihi – he has over 55 plants ready to be planted this spring. These will be planted at Moturoa School – to provide a seed stock, Mimi School and back in Parininihi by school students this September/October – weather and access permitting			





Media/Promotional Events/Education

Media	Events attended	Schools visited	Visits to Parininihi
Media release around kokako 29 th May 2017 – Daily News	Volunteer training day organized by Wild for Taranaki	St Josephs Waitara Nov 2016 Environschool project	Over 250 people attended the two days of kokako Release at Parininihi in May and July 2017.
Feature on RNZ 29 th May 2017 about kokako Translocation	Production of play based on Tamanui book by Tauranga Intermediate – August 2017	Top Kids Preschool February this year	Link to video of event attached
Advert – in Taranaki Midweeker to thank supporters (attached)	Deloitte Energy Awards – to support entry by Shell NZ for its sponsorship of TTMOP	Visit by Mimi School to Parininihi	Visit by Shell NZ
	Kokako Specialist Group Annual Hui – August 2017		Visit to Parininihi by Howick Tramping Club
	Bird releases at Lake Rotokare and Taranaki Mouna		

Challenges Facing TTMOP

Funding:

The major challenge that the Trust faces over the next year is the lack of funding to maintain and strengthen our Infrastructure – we have worked hard to establish our track network but it is in urgent need of maintenance and we find it very difficult to find funding for this. This is essential to enable us to keep our pest control up to the required standard and for it to be effective. The tracks also need to be safe for our contractors and volunteers to use.

The amount of work that has been needed to keep the Trust running smoothly this year has increased dramatically (this has been partly due to the Kokako release) This has increased the workload of the Trustees and our Project Manager.

In the future we need to find funding for more personnel – in particular for administration which is now mainly being carried out voluntarily.

We need to update our 10 year budget and create a work plan that we can achieve.

State Highway 3 – Parininihi (Mount Messenger) upgrade

The effects of this decision on the work of the Trust is not yet clear – we will potentially have an Increased area to manage. This is good in terms of increasing the habitat available for the Kokako and other iconic species but it also means we will need more funding to be able to achieve this.



- Link to video of kokako release

<https://www.facebook.com/Parininihikokako/videos/1113105082127696/>.

Kōkako back home in Taranaki

Twelve kōkako have successfully been released back into Parininihi Forest, North Taranaki.

The last Taranaki kōkako (Tamanui) was removed from Moki forest near Parininihi in 1999 on the understanding that his descendants would be returned once the forest is restored.

Since then, many organisations and people have helped Tiaki te Mauri o Parininihi Trust undertake an intensive pest control programme, working towards the significant milestone of returning kōkako to Parininihi.

At long last, the land and forest have been restored and the kōkako have come home to Parininihi

The twelve Taranaki kōkako, many of whom are descendants of Tamanui, have come from Tiriti Matangi Island.

Thank you!

Tiaki Te Mauri o Parininihi Trust would like to thank the following organisations for their support:

Shell New Zealand
TSB Community Trust
Tiritiri Matangi Island
Taranaki Regional Council
Department of Conservation
Community Conservation Fund
Lotteries Environment & Heritage
Te Puni Kokiri
Kiwis for Kiwi
Independent Technologies Ltd (ITL)

World Wildlife Fund (WWF)
Tegal Hatchery
Taranaki Conservationists
Taranaki Electricity Trust
Puke Ariki
International Volunteer HQ
Precision Helicopters Ltd
Rotokare Scenic Reserve Trust
Ngāti Manuhiri

Along with the many local businesses, schools and volunteers who donate goods, services and time.



TIAKI TE MAURI O PARININIHI TRUST

Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy and Planning Committee**

**Subject: Annual report on the implementation of
the National Policy Statement for
Freshwater Management: 2016/2017**

Approved by: A D McLay, Director – Resource Management
B G Chamberlain, Chief Executive

Document: 2001186

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 2016/2017 financial year.

The memorandum also provides important contextual information about freshwater management in the region and what is being achieved and reported through state of the environment monitoring and annual reports.

A link to the NPS-FW is attached for Members' reference - <http://www.mfe.govt.nz/publications/fresh-water/national-policy-statement-freshwater-management-2014-amended-2017>.

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 the Council must prepare an implementation plan.
- An implementation plan has been prepared and is incorporated in the agenda item - *Implementation Programme for the National Policy Statement for Freshwater Management: Taranaki Regional Council*.
- Policy E1(e) of the NPS-FM requires Council to publicly report annually on the extent to which the implementation plan has been implemented.
- In 2016/2017, Council prepared and released the *Taranaki Regional Council Requirements for Good Farm Management* setting out directions on freshwater activities including farm dairy effluent, riparian management, wetland protection, forestry, and stream modification, while the Council continued reviewing its Freshwater and Land Plan.

- In 2016/2017, 263 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.
- Through the resource consent process Council is managing adverse effects on freshwater quality and availability (quantity), which gives effect to Objectives A1, A2, A3, A4, B1, B2, B3, B4, B5 and D1 of the NPS-FM.
- Council and farmers on intensively farmed land continue to progress stock exclusion and riparian planting on the ring plain and coastal terraces. This contributes to giving effect to Objectives A1, A2, A3 and A4 of the NPS-FM. As at 30 June 2017, 85% of riparian plan streams are now fenced and 70% protected by vegetation (where recommended).
- In 2016/2017, Council and iwi authorities established tangata whenua representation on the Council's Policy and Planning and Consents and Regulatory committees, which contributes to Objective D1 of the NPS-FM.
- Progress on the ongoing engagement, research, investigations and information gathering underpinning the development of a Proposed Freshwater and Land Plan continued. Key activities for 2016/2017 were:
 - commissioned a review of recommended environmental flow limits and continued the 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
 - Council input into the setting of regional swimmability targets.
- The content of this memorandum gives effect to the Policy E1(e) reporting requirements of the NPSFM.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum on the *Report on the implementation of the National Policy Statement for Freshwater Management: 2016/2017*
2. notes the progress on the implementation of the NPS-FM for the 2016/2017 financial year.
3. notes this agenda item fulfils the public reporting provisions of the progressive implementation plan.

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 out the objectives and policies for freshwater management under the RMA. It sets national directions for improving or maintaining water quality and protecting important ecosystems in our lakes, rivers, streams and aquifers. It also incorporates the

National Objectives Framework (NOF), which is a new approach to the establishment of objectives for freshwater values across New Zealand.

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.

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. However, the NPS-FM contains additional requirements relating to plan development, limit setting and processes that must also be satisfied.

Under 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 an implementation plan for giving effect to the NPS-FM.

Members may therefore recall that at the Policy and Planning Committee meeting of 26 November 2015, Council adopted (and publicly notified) its progressive implementation programme (PIP) entitled *Implementation Programme for the National Policy Statement for Freshwater Management: Taranaki Regional Council*.

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 2014 by 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."*

Progressive implementation programme for Taranaki

To briefly recap, the Council's PIP outlines the staged implementation of key projects that the Council will undertake to implement the NPS-FM. Activities are grouped under the following headings, these being:

- the resource consent process
- other (non-regulatory) initiatives that sit outside RMA documents and/or requirements
- amendments to regional plans.

The PIP recognises that the key vehicle for implementing and giving full effect to the NPS-FM is the Council's review and amendments to existing plans, 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.

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. 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.

For a summary of key implementation activities and milestones across all four phases, please refer to Appendix I of this memorandum.

NPS-FM implementation 2016/2017

Set out below is a summary of and discussion on the key activities and milestones achieved in 2016/2017 in relation to the implementation of the PIP. The content of this memorandum gives effect to Policy E1(e) requirements for Council to annually report on the extent to which the PIP has been implemented.

Resource consenting process

In relation to the assessment of and decisions on resource consent applications relating to freshwater resources, in 2016/2017, 263 consents were granted - 235 (or 89%) 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, 76 farm dairy effluent consents were processed in 2016/2017. Seventy-five of these or 98% 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 2017, 58% of the 1,709 FDE systems now discharge to land.

The assessment of and decisions on resource consent applications that manage adverse effects on freshwater quality and availability (quantity) contributes to giving effect to Objectives A1, A2, A3 and A4 [Water quality], B1, B2, B3, B4 and B5 [Water quantity], and D1 [Tangata whenua roles and interests] of the NPS-FM.

Non regulatory initiatives

In relation to other (non regulatory) initiatives for implementing the NPS-FM in 2016/2017, Council prepared 100 riparian plans covering 524 kilometres of stream bank. Plan recommendations propose 208 kilometres of riparian management with the balance of 315 kilometres already being adequately protected.

As at 30 June 2017, 2,687 riparian management plans have been prepared recommending the planting of 5,981 km and fencing of 6,886 km of stream banks on the ring plain and coastal terraces. At 30 June 2017, 42.7% (41.4% - 2015/2016) of the recommended planting and 67.5% (65.7%) of the recommended fencing had been completed resulting in 85% (84.4%) of riparian plan streams now protected by fencing and 70% (69.5%) by vegetation where recommended.

In 2016/2017, 363,525 riparian plants were sold to 952 plan holders at cost. As at 30 June 2017, almost 4.7 million riparian plants have been sold to riparian plan holders.

Ongoing progress in stock exclusion and riparian planting contributes to giving effect to Objectives A1, A2, A3 and A4 [Water quality] of the NPS-FM.

In 2016/2017, tangata whenua participation on Council standing committees relating to resource management was also established. Three iwi representatives now sit on and contribute to resource management decision making on the Policy and Planning and Consents and Regulatory committees.

The establishment of tangata whenua representation on the Council's Policy and Planning and Consents and Regulatory committees contributes to giving effect to Objective D1 [Tangata whenua] of the NPS-FM.

Amendments to regional plans

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 2016/2017.

In March 2017, the booklet *Taranaki Regional Council Requirements for Good Farm Management* was prepared and widely distributed to all major resource users, including farmers, contractors, and consent holders. The requirements booklet outlines Council's requirements and expectations going forward in relation to good farming practices, particularly in relation to farm dairy effluent, riparian management, wetland protection, forestry, and stream modification.

Further investigations were also commissioned in 2016/2017 to inform the Plan review process. They included:

- commissioning a consultant to review environmental flow and allocation options and recommendations for inclusion in a Proposed Plan.
- the ongoing development and implementation of the Council's freshwater quantity accounting system. In 2016/2017, the Council completed a review of flow statistics across the region and updated its freshwater quantity accounting system accordingly. The water accounting systems will be used to ensure consented abstraction volumes from each waterbody remain below the limits specified in the Proposed Freshwater and Land Plan. The accounting system is now in use and is updated as flow statistics are refined or new water take consents are issued.
- research project was undertaken with GNS, looking at shallow groundwater quality in the Waiokura catchment for review against OVERSEER predictions and for determining the age of groundwater. NIWA and the Council undertook field sampling and inspections.
- research project initiated with NIWA into instream health and water quality arising from riparian management activities.

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 implementation milestones and activities for NPS-FM 2016/2017

Key activities	Comment on 2016/2017 progress	Gives effect to NPSFM objective
Further stakeholder engagement on Plan review	Wider stakeholder and community engagement limited for the 2016/2017 period. Stakeholder workshops on interim review of RPS held 25 July, 3 August, 9 August, 10 August, 12 August and 18 August 2016. Targeted consultation on interim review of the RPS, with issues raised that included feedback on freshwater management issues.	A [Water quality] B [Water quantity] CA [NOF framework]
Further iwi consultation on Plan review iwi	Iwi engagement limited for the 2016/2017 period. However, in relation to the Coastal Plan review, good progress made on development of Plan provisions and the identification of sites of significance that have direct applications for the freshwater and soil plans' review.	AA [Te Mana o te Wai] CA [NOF framework] CB [Monitoring plans] D [Tangata whenua]
Reviewing, responding to, and incorporating RMA and freshwater reforms	During the 2016/2017 period, Council reviewed a plethora of Government proposals relating to the RMA and freshwater reforms and made 9 submissions (out of a total of 31 submissions prepared that year) were prepared on matters that relate fresh water and/or the implementation of the NPS-FM. The submissions related to the National Environmental Standard for Plantation Forestry, Clean Water Suitability proposals, the MfE review of the implementation of the NPS-FM, further submission on clean water swimmability proposals, clean water consultation, draft Resource Management (NES-PF) Regulations 2017, the NPS-FM Implementation Review, sector response to NPS-FM Implementation Review, and feedback on draft riparian regulations. Additional policy, liaison and technical input was provided to MfE and the regional sector on the NPSFM review and the setting of swimmability targets.	A [Water quality] B [Water quantity] C [Integrated management] CA [NOF framework] CB [Monitoring plans]
Further review, research, investigations and information gathering	Supporting science continues to be progressed. Freshwater quantity accounting system developed. As part of the Plan review, in 2016/2017, the Council completed a review of flow statistics across the region and developed its freshwater quantity accounting system. The water accounting systems will be used to ensure consented abstraction volumes from each waterbody remain below the limits specified in the proposed Land and Water Plan. The accounting system is now in use and is updated as flow statistics are refined or new water take consents are issued.	A [Water quality] B [Water quantity] CA [NOF framework] CC [Accounting]
Identifying and evaluating policy options for freshwater management	Freshwater quality accounting system developed. Commissioned Ian Jowett to review environmental flow limits. Commissioned research into water quality and instream health impacts of riparian management, and shallow groundwater quality. Summary of feedback on Draft Plan prepared	
Revising draft Plan and preparation of a Proposed Plan	As planned, further development of draft Plan provisions was limited during the 2016/2017 period as Council focus was on evaluating and responding to national freshwater initiatives (and their implications for Council) and undertaking further work, investigations and research on the setting and monitoring of water quality and quantity limits. Notwithstanding the above, a revised draft Plan version has been prepared that will continue to be amended over time to incorporate the results of further engagement and investigations.	AA [Te Mana o te Wai] A [Water quality] B [Water quantity] C [Integrated management] CA [NOF framework] CB [Monitoring plans] CC [Accounting] D [Tangata whenua]

State of the environment trends

Comprehensive state of the environment monitoring confirms Taranaki's river and stream waters are of good quality, particularly at sites in the upper reaches of ring plan catchments.

Notwithstanding the above, the instream health of rivers does decline downstream. Human induced factors associated with declining downstream water quality include agricultural point source discharges plus high turbidity and sediment loads caused by land erosion, river channel erosion and run off from agricultural and industrial and trade premises, and stormwater discharges.

The latest results describing the state of and trends in the state of the macroinvertebrate (MCI) communities of the region's waterways show the best ever trends in ecosystem health. The last updated trend analysis (2015/2016) showed some degree of measurable improvement in ecological health at 46 (87%) out of 53 monitoring sites. There was only one ecological monitoring site in Taranaki showing a significant negative trend - a site in the upper Katikara Stream that had been affected by a recent natural headwater erosion event on the mountain.

The latest results describing physicochemical monitoring results also show encouraging trends. Over the last seven years, 89% of all physicochemical parameters have either shown no trend ('maintenance') or improvement ('enhancement'). That is, there is an overall shift towards improving rather than the continuation of deteriorating trends in the region as time passes.

Of note, recent trends over the last seven years show no trends in total nitrogen and nitrate trends on a regional scale over this period of time, i.e. no degradation, although a few monitoring sites are currently showing some degree of deterioration in dissolved and total phosphorus. When the current results together with previous seven-year trends are examined, it becomes apparent that over the last ten years, trends in total nitrogen and nitrate have been predominantly positive (i.e. concentrations are reducing).

There continues to be a clear pattern of trends in water quality parameters becoming more positive as time passes, notwithstanding that on a year by year basis there will be natural fluctuations.

Having regard to NOF attributes 96.4% of Council's physicochemical monitoring sites fall within the 'A' (Excellent) and 'B' (Very good) bands for freshwater quality. The results reflect the effectiveness of the Council's policies and programmes. In particular it reflects a reduction in municipal, industrial and, to a lesser extent, agricultural discharges to water, improvements in wastewater discharges to water, and livestock exclusion and riparian planting on intensively farmed land.

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.

Appendix I: NPS-FM implementation programme

Table 2: Phases in preparing the Freshwater and Land Management Plan for Taranaki

Phase	Title	Key activities	Key milestones	Comment on 2016/2017 progress
1	Preliminary consultation and engagement	<ul style="list-style-type: none"> ▪ Targeted stakeholder engagement on key issues ▪ Technical and monitoring documents created on topics affecting freshwater quality ▪ Research into suggested water quality limits for Taranaki's rivers and streams ▪ Identifying NOF values and objectives for Taranaki water bodies ▪ Identifying and evaluating policy options for freshwater management 	<ul style="list-style-type: none"> ▪ Interim review on the efficiency and effectiveness of the Freshwater Plan (2008) and Soil Plan (2009) ▪ Future directions documents for gravel extraction, farm dairy effluent, river and stream bed modification, nutrient management, biodiversity, and oil and gas ▪ Water quality limits technical papers ▪ Strategic peer review of the draft Freshwater and Land Management Plan for Taranaki ▪ Supporting communications material prepared ▪ Draft Plan completed May 2015 	Completed
2	Development of the Proposed Plan	<ul style="list-style-type: none"> ▪ Further stakeholder engagement on key issues, particularly setting NOF values and objectives and setting limits for Taranaki water bodies ▪ Further iwi consultation to recognise and provide for issues of significance to iwi ▪ Reviewing, responding to, and incorporating RMA and freshwater reforms ▪ Further review, research, investigations and information gathering on key issues ▪ Identifying and evaluating policy options for freshwater management ▪ Revising draft Plan and preparing a Proposed Plan 	<ul style="list-style-type: none"> ▪ Submissions and other policy input into RMA and freshwater reforms 	Activity ongoing
			<ul style="list-style-type: none"> ▪ Technical reports on nutrient management in Taranaki 	Activity ongoing
			<ul style="list-style-type: none"> ▪ Outstanding and significant waterbodies report prepared and consulted on 	Completed
			<ul style="list-style-type: none"> ▪ Summary of feedback on Draft Plan 	Completed
			<ul style="list-style-type: none"> ▪ Water quality accounting system developed by July 2016 	Completed
			<ul style="list-style-type: none"> ▪ Water quantity accounting system developed by July 2016 	Completed
			<ul style="list-style-type: none"> ▪ Section 32 Evaluation Report prepared 	Activity ongoing
		<ul style="list-style-type: none"> ▪ Revised draft Plan to be completed by December 2020 	Activity ongoing	
3	Formal public consultation on a Proposed Plan	<ul style="list-style-type: none"> ▪ Notifying the Proposed Plan ▪ Receiving submissions and further submissions ▪ Hearing the submissions ▪ Making and notifying the decisions on submissions 	<ul style="list-style-type: none"> ▪ Proposed Plan to be publicly notified by December 2020 ▪ Summary of submissions available for further submissions ▪ Officers report in response to submissions ▪ Council's decisions on submissions ▪ Proposed Plan is amended in accordance with decisions 	Implementation not programmed in current reporting period
4	Appeals and final adoption of the Plan	<ul style="list-style-type: none"> ▪ Appeals lodged against part or all of the decision ▪ Mediation ▪ Environment Court hearing ▪ Adoption of the Plan 	<ul style="list-style-type: none"> ▪ Court assisted mediation ▪ Negotiated Consent Orders ▪ Court decision ▪ Formal adoption of the Proposed Plan and making it operative by 31 December 2023. 	Implementation not programmed in current reporting period

Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy & Planning Committee**

Subject: Report on draft swimmability targets

Approved by: AD McLay, Director-Resource Management

B G Chamberlain, Chief Executive

Document: 2019876

Purpose

The purpose of this memorandum is to introduce a report setting out draft regional targets for swimmable rivers and lakes in Taranaki.

A copy of the report is attached to this memorandum.

Executive summary

Under the National Policy Statement for Freshwater Management (NPS-FM), regional councils must set targets to achieve improvements in swimmability in rivers and lakes in their regions. Draft regional targets must be made available to the public by 31 March 2018 and final targets made publically available by 31 December 2018.

A taskforce set up to assist regional councils in this work has advised the Council that currently overall swimmability for the Taranaki region is estimated as 39% of rivers and 97% of lakes. These figures have been based on computer modelling undertaken for the taskforce. Based on works already committed the modelling shows 65.5% of rivers swimmable by 2030, below the national target of 80% of rivers swimmable.

The attached report concludes that the likely level of compliance on completion of currently committed work programmes will result in 50-55% rivers swimmable rather than 65.5% as determined by the NPS-FM.

The Council's view expressed in the report is that the MfE inputs into the modelling are overly optimistic, especially in relation to the anticipated water quality benefits of spreading farm dairy effluent to land rather than continuing with the use of treatment ponds, which ultimately discharge to waterways. The Council again points to what it believes are flaws in the modelling work and calls for a review of the modelling undertaken.

In discussing the process from here, the report notes that the report has been presented to and discussed by the Policy and Planning Committee. Comment and feedback on the report

will be considered alongside other feedback and input when finalising the regional targets, which are required by 31 December 2018.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum *Report on draft swimmability targets*
2. notes that draft regional targets will be made available to the public by 31 March 2018 as required by the National Policy Statement for Freshwater Management
3. notes the community will not be able to meet the Government's targets
4. notes feedback from the public will be sought on the targets
5. sends a copy of the report to the Ministry for the Environment
6. notes that the targets could change before the Council is required to adopt final targets by 31 December 2018.

Background

Members will recall that in early 2017, the Government announced its proposal to amend the National Policy Statement for Freshwater Management (NPS-FM) and introduce a national (non-statutory) target for swimmable rivers and lakes. The proposals were set out in the consultation document *Clean Water: 90% of lakes and rivers swimmable by 2040*. The Minister for the Environment at the time, the Hon Dr Nick Smith, wrote to all regional councils to inform them of the national target and to "encourage input and an early start to the implementation of these ambitious goals".

After considering submissions to the proposals in the *Clean Water* document, the Government made a suite of changes to the NPS-FM, which were gazetted in August 2017. These amendments included setting a national target 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 term "specified rivers and lakes" is defined in the NPS-FM as rivers that are fourth order or above 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, the NPS-FM directs regional councils to set regional targets. Draft regional targets must be made available to the public by 31 March 2018 and final targets made available by 31 December 2018.

To help councils respond to the requests for information and develop their regional targets as directed in the NPS-FM, central and local government established a governance group and taskforce comprising officials from the Ministry for the Environment (MfE) and the Ministry for Primary Industries (MPI) and staff from regional councils and territorial authorities. The governance group has been responsible for coordinating the sector's response to the policy proposals and more generally overseeing the work of the taskforce.

The taskforce has focused on a programme of work to collect the information needed to achieve the deadlines set by the Government.

During this process, a number of regional councils, including this Council, raised concerns with the taskforce about the national targets. The issues raised included the following:

- The methods of assessing and reporting *E.coli* takes no account of seasonal effects (e.g. weather and river flow conditions) that influence when people choose to 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 affect the process of identifying other community values (such as agricultural use or mahinga kai) and setting freshwater objectives and limits for those values as required under the NPS-FM.
- The target's focus on *E.coli* as a measure of suitability for swimming. In some regions, the community outcomes sought will mean other contaminants such as nitrogen, phosphorus and sediment will be a higher priority.

Furthermore, the figures derived for each region as to current swimmability and projected improvements that are necessary have been generated by computer modelling undertaken on behalf of the taskforce. The report also modelled the economic impacts of the committed work programmes. The Council was not involved in this modelling work.

We have raised a number of concerns (which were reported to the Committee at its last meeting on 30 January 2018) concerning the modelling work and these have been acknowledged by the taskforce, for example:

*'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

The taskforce continues to discuss these issues. Council staff believe that a fundamental rethink of the modelling work is required and should exclude such things as high flow periods. Such changes are sensible and are consistent with Council advocacy over the past few months. Council staff also understand the coalition Government may wish to review some aspects of the swimmability provisions and focus on summer when people are actually swimming.

In the meantime, however, we have to report on draft swimmability targets for Taranaki by 31 March 2018 and the draft targets are in the attached report.

The report

The taskforce has advised the Council that currently overall swimmability for the Taranaki region is estimated as 39% of rivers and 97% of lakes. Based on works already committed the

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.

modelling shows 65.5% of rivers swimmable by 2030, below the national target of 80% of rivers swimmable.

The attached report follows the template for developed for all regional councils to follow in presenting draft regional targets for swimmability.

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 where the Council has got to on its review of the *Fresh Water Plan* and its commitment to fully implement the NPS-FM through the review process.

This section of the report concludes with a brief statement on 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.

On the draft regional targets, the report concludes that the likely level of compliance on completion of committed work programmes will result in 50-55% rivers swimmable rather than 65.5% as determined by the NPS-FM.

The Council's view expressed in the report is that the MfE inputs into the modelling are overly optimistic, especially in relation to the anticipated water quality benefits of spreading farm dairy effluent to land rather than continuing with the use of treatment ponds, which ultimately discharge to waterways. The Council again points to what it believes are flaws in the modelling work and calls for a review of the modelling undertaken.

In discussing the process from here, the report notes that the report has been presented to and discussed by the Policy and Planning Committee. Comment and feedback on the report will be considered alongside other feedback and input when finalising the regional targets, which are required by 31 December 2018.

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.

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 2019666: Draft regional targets for swimmable rivers and lakes in Taranaki: March 2018

National Policy Statement for Freshwater Management

Draft regional targets for swimmable rivers and lakes for the Taranaki region: March 2018

Introduction

The National Policy Statement for Freshwater Management (NPS-FM) directs all regional councils (including unitary authorities) to set draft regional targets to improve the quality of fresh water so rivers are suitable for primary contact more often. Furthermore, the Council is required to make draft regional targets available to the public by 31 March 2018, with final regional targets made available to the public by December 2018. This report has been prepared to meet these requirements.

“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).

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 their report 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

A report on these theoretical improvements and costs, presented region-by-region has been prepared and is currently undergoing some final editing. Officers have extracted key aspects of the report and included them in this report.

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

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.

council is required to develop targets to demonstrate a regional contribution towards the national target.

The joint taskforce has now advised the Taranaki Regional Council that currently, overall swimmability for the Taranaki region is estimated 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.

Regional context and focus

Good freshwater quality is one of the most important issues for the Taranaki Regional Council and has been since the Council 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.

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 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 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. 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 programme, 99.5% of dairy farms have a riparian plan in place. The programme covers 14,500 kilometres of stream bank. As at June 2017, 84.4% of plan holders have fenced their streams and over 70% have their streamside margins in suitable vegetative cover. Over 4.3 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 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 Council released a draft *Freshwater and Land Management Plan for Taranaki* for pre-notification for comment in 2016. 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, 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 that these are the best that the region has ever seen. Statistically robust trend analysis show improvements continue to be made over time. It should be noted that 'swimmability' in Taranaki's rivers is generally already good to very good where and when it matters – at recognised community swimming spots during summer. (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.

Draft regional targets

The anticipated delivery of swimmability for the Taranaki region based on the taskforce modelling of programmes already underway are for 65.5% 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).

The change in the percentage of swimmable rivers in Taranaki as currently modelled by MfE is the greatest change that would occur in any region in New Zealand (an improvement of over 26% in absolute terms, to 65.5% 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 2.8%, a relative reduction of 83%.

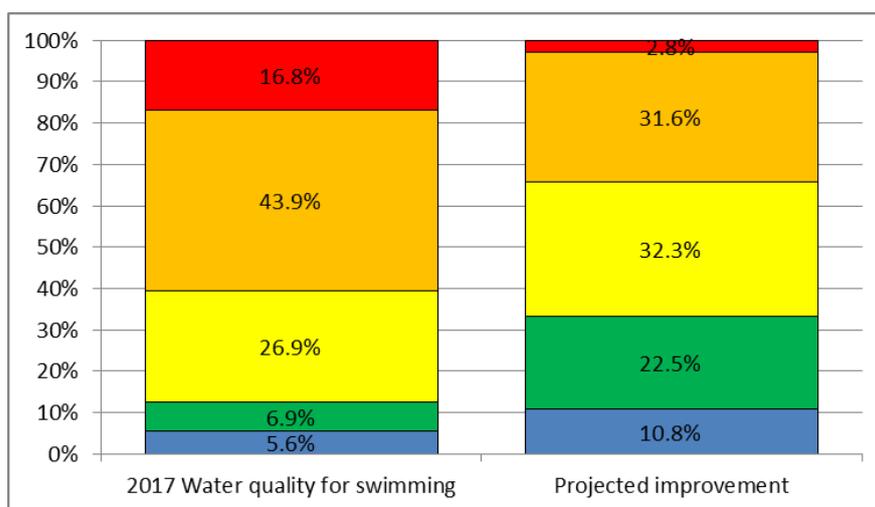


Figure 1 Projected improvement in water quality for swimming for Taranaki rivers.²

However, Taranaki Regional 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 65%. The Council's view is that the MfE 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.

Hence, 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 region's riparian programme Taranaki is investing and doing far more than the NPS-FM requires and doing more than many other regions in New Zealand.

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

² 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.

the NPS 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'.

The Council has recently 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. 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. It is awaiting reports from NIWA and Dairy NZ that are intended to verify and validate, as distinct from modelling, the effectiveness of various methods of reducing *E.coli* in waterways. These will be considered further in developing the final regional targets required by 31 December 2018.

Regional process from here

This report will be presented to the Council's Policy and Planning Committee for comment and feedback. The responses to the draft targets will be considered alongside other feedback and input when finalising the regional targets by 31 December 2018.

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.

Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy and Planning Committee**

**Subject: Draft report on incorporating
mātauranga Māori into monitoring of
freshwater in Taranaki**

Approved by: A D McLay, Director – Resource Management
B G Chamberlain, Chief Executive

Document: 2015671

Purpose

The purpose of this memorandum is to introduce a draft report into how the Council might incorporate mātauranga Māori into the monitoring of freshwater in Taranaki. The report is considered draft because it contains important cultural matters the Council wishes to consult Taranaki iwi authorities on.

A copy of the draft report is attached to this memorandum.

A presentation will be made to the Committee on the findings contained in the draft report.

Executive summary

Under the provisions of the National Policy Statement for Freshwater Management, the Council is required to incorporate mātauranga Māori (traditional Maori knowledge) into the development of a freshwater monitoring plan.

The attached report provides insights into the Māori worldview in order for the Council, as the statutory resource manager, to understand and comprehend the concept of mātauranga Māori. A brief summary of the success and challenges of other regional councils in incorporating mātauranga Māori into their freshwater planning and monitoring is presented in the report. Some frameworks and monitoring tools currently being used around the country are also discussed.

Common themes and indicators from across the frameworks and monitoring tools discussed that provide for mātauranga Māori alongside western science are presented. These will form a framework for discussions with the iwi authorities of Taranaki when developing a monitoring plan.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum Draft *report on incorporating mātauranga Māori into monitoring of freshwater in Taranaki*;
2. notes that there are common themes and indicators represented across the frameworks and monitoring tools discussed that provide for mātauranga Māori in freshwater monitoring and that these will form the basis of discussions with iwi;
3. agrees to initiate consultation with iwi on developing a freshwater monitoring plan incorporating mātauranga Māori.

Background

In order to fulfil the requirements of the National Policy Statement for Freshwater Management (NPS-FM) and increase Māori participation in freshwater management, the Taranaki Regional Council (the Council) is required to incorporate mātauranga Māori (or traditional Māori knowledge) of freshwater alongside western science into freshwater monitoring. Every regional council is to implement these requirements no later than 31 December 2025.

To do this effectively, the Council must first have a good understanding of mātauranga Māori in relation to freshwater in the Taranaki region. This must include finding how Māori determine the quality of waterways, both spiritually and physically, based on traditional knowledge, and then finding indicators and tools to monitor those indicators. This information can be obtained through engagement with local iwi and through searches of relevant documents.

The purpose of the attached draft report is to provide insight into the Māori worldview in order for the Council, as the statutory resource manager, to understand and comprehend the concept of mātauranga Māori.

A brief summary of the success and challenges of other regional councils in incorporating mātauranga Māori into their freshwater planning and monitoring is presented in the report. Some frameworks and monitoring tools currently being used around the country are also discussed.

Finally, some considerations as to how the Council might incorporate mātauranga Māori into its freshwater planning and monitoring framework are provided.

The primary author of the report was Ms Summer Norgate of Ngaa Rauru, an Otago University student working for the Council over the 2017/18 Christmas holidays.

Discussion

The attached report begins by outlining the requirements of the Resource Management Act (RMA) and the NPS-FM in relation to the Treaty of Waitangi and more specifically, provisions of the NPS-FM regarding mātauranga Māori.

The report identifies and discusses five objectives in the NPS-FM that reflect mātauranga Māori. The one specific reference to mātauranga Māori is Policy CB 1 in relation to

establishing a monitoring plan. The report then goes on to explain the meaning of mātauranga Māori, which is essentially traditional knowledge, based on long-standing interactions between people and their surrounding environment. It refers to Māori concepts, knowledge systems, philosophies, frameworks and principles founded on traditional knowledge and beliefs.

How this then translates to freshwater management is discussed. The concepts of kaitiakitanga (guardianship) and mauri (life force), and the importance of waterways in providing mahinga kai, among others, are noted and described. Māori believe that freshwater must be seen and managed in an integrated and holistic manner that is linked to all other resources in the environment.

In the western science view on the other hand, the focus is on a technical approach based on scientific evidence that allows quantitative data to be gathered and trend analysis to be undertaken. This can lead to what the report describes as a 'disjunction' between the technical/scientific method of western science and the holistic/spiritual connections between Māori and freshwater.

However, much work has been done in recent years by iwi authorities, government departments, researchers and other regional councils in looking to develop frameworks for incorporating mātauranga Māori into freshwater planning. The experiences, opportunities and learnings from these various initiatives are outlined in the report. Many of these will be useful learnings for the Council going forward.

Mātauranga Māori is, however, a sensitive issue for iwi and is very iwi specific.

In order to develop a freshwater monitoring plan that incorporates mātauranga Māori, the Council will need to engage with the individual iwi within the region to determine the quality of a waterway and the indicators that can be used to assess this.

Nevertheless, there are common themes and indicators represented across the frameworks and monitoring tools discussed in the report that provide for mātauranga Māori in freshwater monitoring alongside western science to reflect the values of iwi/hapu (see Table 10 in the attached report). These indicators could form a framework and the basis of discussions with iwi authorities in Taranaki when developing a monitoring plan.

Presenting a foundation of options for discussion would be efficient for all involved.

The draft report will be incorporated into further consultation and discussion on the Freshwater and Land Plan for the region.

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 1983875: Draft report on incorporating mātauranga Maori into the monitoring of freshwater in Taranaki.

Draft

Incorporating Mātauranga Māori into the
Monitoring of Freshwater in Taranaki.

Taranaki Regional Council
Private Bag 713
Stratford

March 2018

Document No. 1983875

Table of Contents

Overview	1
1 Introduction	2
1.1 General.....	2
1.2 The Treaty of Waitangi/ Te Tiriti o Waitangi	2
1.3 National Policy Statement for Freshwater Management (NPS-FM).....	2
1.3.1 Objective AA1 –Te Mana o te Wai	3
1.3.2 Objective C1- Integrated Management	3
1.3.3 Objective CA1- National Objectives Framework (NOF)	3
1.3.4 Objective CB1- Monitoring Plans	4
1.3.5 Objective D1-Tangata Whenua Roles and Interests	4
2 Mātauranga Māori.....	5
2.1 Understanding Mātauranga Māori	5
2.2 Mātauranga Māori and Freshwater Management	6
2.3 Informing Mātauranga Māori	7
2.4 Other Regional Councils and Mātauranga Māori	7
2.4.1 Waikato Regional Council (WRC).....	8
2.4.2 Greater Wellington Regional Council (GWRC).....	8
2.4.3 Southland and Otago Regional Councils (SRC and ORC).....	8
2.4.4 Gisborne District Council (GDC)	9
2.4.5 Horizons Regional Council (HRC).....	9
2.4.6 Tasman District Council (TDC).....	9
2.4.7 Hawkes Bay Regional Council (HBRC)	10
2.4.8 Summary	10
2.5 Taranaki Regional Council and Mātauranga Māori.....	10
2.5.1 Ngāti Ruanui Environmental Management Plan (2012)	11
2.5.2 Ngāti Mutunga Iwi Management Plan (Draft)	11
2.5.3 Ngaa Rauru Kiiitahi- Puutaiao Management Plan.....	11
2.6 Challenges for Taranaki.....	12
3 Frameworks and Monitoring tools	13
3.1 Planning Frameworks.....	13
3.1.1 Tikanga Māori-based framework.....	13
3.2 Monitoring Frameworks and Tools.....	14

3.2.1	Cultural Health Index (CHI)	15
3.2.2	State of the Takiwā (SoT)	16
3.2.3	Ngā Atua based framework	17
3.2.4	Mauri of the Waterways Outcomes and Indicators Tool Kit	18
3.2.5	Te Mauri Model.....	20
3.2.6	The Mauri Compass	21
3.2.7	Wai Ora Wai Māori Tool	21
3.2.8	The Waikato River Pilot Report Card	22
3.3	Other Scientific Monitoring Tools.....	22
3.3.1	The Stream Health Assessment Kit (SHMAK).....	22
3.3.2	Stream Habitat Assessment Protocol (SHAP)	23
3.4	Monitoring in Taranaki.....	23
3.5	Summary of Monitoring Tools	29
4	Conclusion.....	33
5	Glossary.....	35
6	References	36

Overview

To fulfil the requirements of the National Policy Statement for Freshwater (NPS-FM) and increase Māori participation in freshwater management, the Taranaki Regional Council is required to incorporate mātauranga Māori (traditional Māori knowledge) alongside western science into freshwater planning and monitoring. Every regional council is to implement these requirements so it is completed no later than 31st December 2025.

To do this effectively, the Taranaki Regional Council (TRC) must first have a good understanding of mātauranga Māori regarding freshwater in the Taranaki region. This must include finding how Māori determine the quality of the waterway (both spiritually and physically) based on traditional knowledge, and then finding indicators and tools to monitor those indicators. This information can be obtained by literary research and through engagement with local iwi.

The purpose of this report¹ is to provide insight into the Māori worldview in order for the Council as the statutory resource manager to comprehend the concept of mātauranga Māori. A brief overview of the successes and challenges that other regional councils are experiencing while incorporating mātauranga Māori into their freshwater planning and monitoring will be presented. Some frameworks and monitoring tools currently being used around the country will also be identified as well as indicators from both a Māori perspective and a western science view. This will provide a basis for consultation, discussion and debate in what is a complex area.

The report then makes some conclusions that include consideration of some recommendations to consider when incorporating mātauranga Māori into its freshwater planning and monitoring framework.

The report is presented as a draft report because it has not been subject to iwi consultation. The final report will be presented back to the Council's Policy and Planning Committee.

¹ The primary author of this report was Miss S Norgate of Ngāa Raua a Otago University student working for the Council over the 2017/18 Christmas holidays

1 Introduction

1.1 General

The sustainable management of freshwater resources is required by the Resource Management Act 1991 (RMA) and is essential to New Zealand's economic, environmental, cultural and social well-being. Due to increasing demands and pressures on New Zealand's freshwater resources new policy and planning processes, such as reforms to the National Policy Statement for Freshwater Management under the RMA, were introduced to improve processes for engagement and decision-making around freshwater resources.

Fresh water is necessary for human functioning, and it is also highly valued for its commercial and non-commercial uses. Fresh water underpins important parts of New Zealand's biodiversity and natural heritage. The challenge freshwater resource managers are faced with is to provide for all the different values that are important to New Zealanders while also promoting sustainable management of the resource. This is a complex and challenging area. Of particular interest to Māori is the protection and revitalisation of the freshwater systems, given their complex and long-held connection with water.

1.2 The Treaty of Waitangi/ Te Tiriti o Waitangi

The Government is becoming increasingly aware of the relationship between Māori and the environment. Through the Treaty of Waitangi/Te Tiriti o Waitangi and legislation such as the RMA, Māori have been acknowledged as having an important role to play. The Treaty of Waitangi is the foundation of the Crown and iwi/hapū relationships with regard to freshwater resources and Treaty principles are extremely important in guiding engagement processes.

Mana Whakahono-a-Rohe (MWR) are written agreements between local government and iwi authorities on ways tangata whenua may participate in RMA decision-making, and to assist councils with their statutory obligations to tangata whenua under the RMA. MWRs can provide information on iwi and hapū input to environmental management processes, such as plans and resource consents.

1.3 National Policy Statement for Freshwater Management (NPS-FM)

National Policy Statements are issued by central government to provide direction to local government about how they carry out their responsibilities under section 45 and 46 of the RMA when it comes to matters of national significance. The National Policy Statement for Freshwater Management 2014 (NPS-FM) recognises the relationship between Māori and fresh water and highlights the recognition of Māori values in fresh water management.

The NPS-FM sets out objectives and policies that direct local government to manage water in an integrated and sustainable way. These objectives are to provide for economic growth within set water quantity and quality limits, in accordance with the National Objectives Framework (NOF). It is a step to improve freshwater management at a national level.

An important part of the NPS-FM is the engagement between tangata whenua and resource managers, and the integration of mātauranga Māori (Māori knowledge) into freshwater monitoring and management. While there is only one specific policy that states "mātauranga Māori" is to be

incorporated, (Policy CB (1) dealing with monitoring plans), mātauranga Māori is in fact being reflected through at least five different objectives in the NPS-FM.

The main objectives regarding mātauranga Māori in the NPS-FM are discussed below.

1.3.1 Objective AA1 –Te Mana o te Wai

Objective: *To consider and recognise Te Mana o te Wai in the management of fresh water.*

Te Mana o te Wai is the integrated holistic well-being of a freshwater body. Upholding this objective acknowledges and protects the mauri of the water and provides for the health of the environment, waterbody and the people. This section of the NPS-FM requires that regional councils should work with their communities, including tangata whenua, to understand what values are held for each freshwater body in their region. Councils should then set freshwater objectives and limits guided by these values, recognising that all decisions made about freshwater management should be made by putting the health and well-being of the water at the forefront of their discussions.

1.3.2 Objective C1- Integrated Management

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

The policies under this objective include the need for regional councils to recognise the interactions ki uta ki tai (from the mountains to the sea) and to manage fresh water and land use development in catchments in an integrated, sustainable way. It is imperative that regional councils have knowledge of the activities that impact on the quality and quantity of fresh water and that the management strategies remedy or mitigate adverse effects.

1.3.3 Objective CA1- National Objectives Framework (NOF)

Objective: *To provide an approach to establish freshwater objectives for national values, and any other values, that is nationally consistent and recognises regional and local circumstances.*

The NPS-FM requires councils to set objectives and limits for freshwater quality and quantity in accordance with the NOF. The NOF provides a list of compulsory values and other national values accompanied by relevant attributes. The compulsory values are ecosystem health and human health for recreation. Other national values include natural form and character, mahinga kai, fishing, irrigation and food production, animal drinking water, wāhi tapu, water supply, commercial and industrial use, hydro-electric power generation, transport and tauranga waka. Attributes for these values are categorised into four states, A, B, C or D, reflecting different levels from A-excellent to D-unacceptable. D is the attribute that falls below the national bottom line and the NPS-FM requires that the freshwater management unit is maintained at its current level or improved, without going below the national bottom line. The freshwater objectives may also include any other values that the regional council considers appropriate through the involvement of iwi and hapū in freshwater management and decision-making.

While the NOF can be extremely useful regarding interests that fall into the categories of the compulsory and other national values, the framework as a whole is as relevant to Māori as it is to other New Zealanders. There are many other frameworks developed by Māori to understand, manage and communicate knowledge about their natural and spiritual environment that can incorporate

mātauranga Māori alongside western science. Discussed later in this report are some well-known frameworks that have helped iwi across New Zealand collaborate with regulatory authorities in regards to freshwater management.

1.3.4 Objective CB1- Monitoring Plans

Objective: *To provide for an approach to the monitoring of progress towards, and the achievement of, freshwater objectives and the values identified under Policy CA2 (b).*

Policy CA2(b) requires regional councils, through discussion with communities, including tangata whenua, to identify the values for each freshwater management unit which must include, the compulsory values and any other national values that regional councils consider appropriate.

Policy CB (1) under this objective is where mātauranga Māori is specifically mentioned.

It requires regional councils to develop a monitoring plan to achieve the freshwater objectives identified earlier. These monitoring frameworks must include at least the monitoring of macroinvertebrate communities, measures of the health of indigenous flora and fauna, and mātauranga Māori. Monitoring plans are also intended to recognise the importance of long term trends in data that can be assessed with statistical analysis.

1.3.5 Objective D1-Tangata Whenua Roles and Interests

Objective: *To provide for the involvement of iwi and hapū, and to ensure that tangata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including how all other objectives of this NPS are given effect to.*

This requires regional councils to involve iwi/hapū in the management of fresh water, work with them to identify their values and interests and reflect those values and interests in decision-making. The community engagement that councils will undertake to provide for Te Mana o te Wai in freshwater management will help councils meet these requirements.

2 Mātauranga Māori

2.1 Understanding Mātauranga Māori

The first step in order to fulfil the requirements of the NPS-FM and for successful implementation of mātauranga Māori into freshwater planning and monitoring is for regional councils to understand the meaning of mātauranga Māori.

Mātauranga Māori, a form of indigenous knowledge, can be generally defined as “the knowledge, comprehension or understanding of everything visible and invisible existing in the universe” (Marsden, 1988). It is essentially traditional knowledge based on long standing interactions, through time and space, between people and their surrounding environment. Mātauranga Māori encompasses not only what is known, but how it is known. It can refer to Māori concepts, knowledge systems, philosophies, frameworks and principles founded on traditional knowledge and beliefs (Harmsworth et al 2016). Because mātauranga Māori is holistic, there are no specific rules or physical reasoning for the actions that the entire Māori culture carried out. This is quite different to western thinking, where everything has a scientific explanation. This disjunction between the Māori world view and the western world, and possible tools to address this, will be discussed in the next section.

For more than 800 years, traditional Māori knowledge has been accumulated and handed down through the generations from tūpuna, rangatira, kaumātua, kuia and tohunga. Being an oral culture, korero is the key to unlocking and passing on knowledge. Each iwi have specific ways of doing things and this is called mātauranga-a iwi, knowledge that is specific to an iwi. This is because each iwi have their own protocols and perspectives that link them to their rohe (Ngā Kaitūhono, 2012). A common mistake in earlier studies of mātauranga Māori, was that information about Māori knowledge was often de-contextualised and confused because writers tried to apply values and processes that they had derived from one iwi, to all of the Māori culture. The information had been removed from the environment and the people that they were intended for (Ngā Kaitūhono, 2012), which created a false interpretation of the Māori world view. In this sense, all information captured on mātauranga Māori should be treated carefully in order for it not to be misinterpreted.

Mātauranga Māori can be represented through many forms, however because the NPS-FM requires the inclusion of tangata whenua values, we will look at mātauranga Māori represented through these values. There are core values that underlie the activities and reasoning of the Māori culture. Māori values can be defined as “instruments through which Māori people experience and make sense of the world” (Marsden 1998). Important values include tikanga (customary protocols), kaitiakitanga (environmental guardianship), tino rangatiratanga (self-determination), mana whenua (authority over land and resources), whakapapa (genealogy, links to ecosystems), whānaungatanga (family relationships), manaakitanga (acts of giving and caring for), arohatanga (notions of care, respect, love, compassion), wairuatanga (spirituality) and whakakotahitanga (consensus, participatory inclusion for decision-making), some of which are clearly described in Jefferies and Kennedy’s (2009) article. (Barlow 1993; Harmsworth and Awatere, 2013; Awatere and Harmsworth, 2014).

The values that underlie mātauranga Māori also form the basis of many Māori protocols and frameworks, including models that guide decision-making for natural resource management (Awatere et al, 2017).

2.2 Mātauranga Māori and Freshwater Management

As indicated previously, a highly important Māori customary value in Te Ao Māori (the Māori world view) is kaitiakitanga (Durette et al. 2006; Harmsworth and Awaterere 2013). Māori have a duty as kaitiaki to protect life-sustaining resources and spiritual connections with resources such as waterways and land, for future generations. Since European settlement and agricultural and urban development (land clearing) water quality and quantity have impacted and mahinga kai significantly impacted. The kaitiakitanga role of tangata whenua has in turn, significantly weakened, and this is a significant issue for Māori.

The maintenance, protection and restoration of mauri is a cultural responsibility of kaitiaki Māori. Mauri is the life-giving ability of an ecosystem, the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force and all life forms are related. Changes to the ecosystems of rivers and streams through activities such as the introduction of exotic species, removal of native vegetation from river and stream banks, sedimentation and erosion, has led to the degradation, and in some cases the death, of the mauri of some catchments. It diminishes customary resources and habitat for flora and fauna which in turn decreases diversity and abundance. These are considered taonga in Te Ao Māori (Harmsworth et al. 2013) and a source of living.

Mahinga kai is also an important value of tangata whenua provided by rivers and streams. This includes fish and plant species used as food, as well as food gathering sites and customary practices associated with food gathering. Freshwater taonga species such as tuna, piharau, koura, whitebait and ika were used as a source of kai and were also provided to manaaki manuhiri at hui and tangihanga. This was tikanga for most Māori villages and because many of these taonga species have disappeared or lessened, these customary practices are no longer able to be carried out. This decreases the mana of the tangata whenua as they are also no longer able to provide for their whanau or manuhiri, either physically or spiritually, as they previously were.

The role of rivers and streams in creation stories and their past use for access routes or transport are extremely important to Māori in terms of whakapapa. In this way, links between past, present and future generations are represented and this reinforces tribal identity. Every iwi and hapū has associations with particular freshwater bodies – streams, springs, rivers, lakes, wetlands, groundwater – that are reflected in their whakapapa (ancestral lineage), waiata (song), and whaikorero tuku iho (stories of the past). Site names, traditional and customary materials, and waahi tapu also represents physical and emotional links to the past and protection of these taonga tuku iho are integral to upholding the health and mauri of freshwater ecosystems.

The Māori relationship with the environment, both animate and inanimate aspects, are part of the Māori identity so protecting that connection is of significant concern. Māori have a “ki uta ki tai” approach, recognising the importance of mauri and that all elements of the environment are connected. In this way, they believe freshwater must be seen and managed in an integrated holistic manner that is linked to all other resources within the environment. Māori ancestors had tikanga for the proper and sustainable use of the resources associated with water that enabled them to do this.

In the western science view and with current resource management strategies, the focus is a fully technical approach based on scientific evidence and biological/physical reason (Tipa and Teirney, 2006). Western science is currently predominating in resource management strategies because it

allows quantitative data to be gathered and statistical trend analyses to be undertaken. Because mātauranga Māori is a form of indigenous knowledge, built on philosophies and the inclusion of holistic and spiritual connections which are hard to measure and compare, it does not naturally fit western science. Mātauranga Māori and western scientific measures of stream health are focussed at completely different levels with the primary form of disjunction being the spiritual connection between Māori and freshwater. From a western science perspective, water may carry contaminants at a level that is non-toxic to humans and is drinkable. However, Māori require their drinking water to be free of spiritual pollution, where certain discharge activities, regardless of the level of physical contamination, are prohibited.

In order to fulfil the requirements of the NPS-FM, the challenge is to find meaningful ways of incorporating cultural perspectives and values into current resource management decision-making, including monitoring.

2.3 Informing Mātauranga Māori

Iwi/hapū engagement and involvement is the foundation of successful implementation of the NPS-FM and incorporating mātauranga Māori into freshwater planning and monitoring. Capacity and capability of both iwi/hapū and councils have a large effect on the process. This also includes the ability of council staff to comprehend mātauranga Māori.

It is important to note that there is no single way to engage with iwi and hapū. It is also a challenge finding how to select the right representation for the iwi/hapū in the region, as it is practically and financially unrealistic for every individual kaitiaki group in the region to be directly involved. There may be competing values between different iwi/hapū and the fact that not all hapū affiliate with an iwi. Some hapū may have concerns that their iwi does not always represent their interests. In this instance it is up to the Council to decide how they can efficiently involve the tangata whenua and incorporate mātauranga Māori in their region.

In general, Geographic Information Systems (GIS) can be used to gather information through identifying and recording areas of Māori significant sites or special interest areas to improve the understanding of Māori values in policy planning (Jefferies and Kennedy, 2009). GIS is also a useful tool to identify priority areas for management and restoration (Harmsworth et al. 2016).

Iwi management plans (IMPs) are also an extremely helpful resource to have when obtaining holistic information from iwi. They are able to codify iwi values to support and collaborate with those people wanting to work on environmental issues and agencies that have the power to implement processes dealing with environmental issues.

2.4 Other Regional Councils and Mātauranga Māori

In a review by the Ministry for the Environment on the implementation of the NPS-FM from regional reports (Ministry for the Environment, 2017), it was clear that all councils expressed a willingness to incorporate mātauranga Māori into their planning and monitoring but were unsure how to do so. In general, Councils noted that they struggled to identify and reflect cultural values in regional plans because many of these values, including mātauranga Māori, are intangible concepts.

Ministry for the Environment (MfE) expressed in their review that a priority area of focus over the next 5 years was that central and local government need to continue to invest in developing

frameworks for incorporating mātauranga Māori into freshwater planning, including sharing lessons learnt. This section of the report will include a brief overview of the successes and/or challenges other regional councils have experienced when involving tangata whenua and/or incorporating mātauranga Māori into their freshwater policy, planning and monitoring programmes, and is based on the MfE review. The Taranaki Regional Council could learn from this information when implementing the NPS-FM.

2.4.1 Waikato Regional Council (WRC)

The Waikato and Waipa catchments in the Waikato region are managed through a statutory co-governance arrangement with the five river iwi that set a higher standard for iwi involvement than the NPS-FM. The Council notes that each iwi's Treaty settlement provides for their participation in the co-governance and co-management framework for the Waikato and Waipa rivers. The Council also notes that this is the reason why the catchments have been prioritised in the Waikato Region.

The collaborative process they use with iwi is called the Healthy Rivers-Wai Ora project and, regardless of being demanding and time consuming, WRC has been satisfied with the process. The Council says it will likely not replicate it exactly when developing plans in other areas. The project was straining on WRC's capacity, as they estimate the collaborative process was as much as twice the cost of the traditional consultative process, making WRC hesitant to repeat the process to the same extent in the future. Council staff have also been exhausted by the intensive workload sustained over a number of years and staff turnover (of scientists and consultants for example) has been high. The Council has therefore struggled with maintaining institutional knowledge and feels it would be difficult to immediately repeat the process in new areas.

2.4.2 Greater Wellington Regional Council (GWRC)

There are five distinct whitua (areas) within the region. For each whitua, GWRC has formed or will form a collaborative group called a whitua committee. These committees are charged with developing a whitua implementation programme (WIP) that identifies tangata whenua values and contains freshwater objectives and recommendations for both regulatory and non-regulatory methods of managing water. The committees however, do not have direct decision-making authority.

Feedback from iwi and tangata whenua showed that there was a satisfying level of iwi inclusion in the GWRC. However, the iwi and the GWRC have a strong concern that when mātauranga Māori and science both inform limits, the two sources of knowledge will create conflict when limits are broken or not reached. There is a lack of Māori-centric indicators for ecological health and mahinga kai, and establishing indicators for these values would be useful.

2.4.3 Southland and Otago Regional Councils (SRC and ORC)

Southland and Otago Regional Councils engage with one governing iwi authority group called Te Rūnanga o Ngāi Tahu. They and the territorial authorities in the two regions participate in a joint management committee called Te Rōpū Taiao. This has been in place since the 1990s to discuss resource management and local government issues at a high level. Te Rūnanga o Ngai Tahu also has developed several cultural monitoring tools (discussed later in the report) and these can be used to inform the Council.

SRC is currently working with Te Ao Mārama (the environmental arm of the Southland Ngai Tahu Rūnanga) on cultural indicators and partnered monitoring programmes, as well as with the Department of Conservation to align freshwater monitoring.

ORC has a Memorandum of Understanding (MOU) with Te Rūnanga o Ngai Tahu. This MOU identifies important interests and addresses local and regional resource management issues. It also outlines how to engage for consultation processes (ORC has chosen to use a consultative rather than collaborative process for policy development and planning). The Council notes that this approach has worked efficiently, avoiding the time and expense that collaborative planning processes have required in other regions. ORC does not have dedicated iwi liaison staff. During previous engagements, tāngata whenua representatives have noted the benefits of having specific liaison staff who are able to effectively engage on iwi issues.

2.4.4 Gisborne District Council (GDC)

GDC has formed a freshwater advisory group (FWAG) that has ten iwi and hapū representatives and reflects values of the wider community. As evidence of its commitment to engaging iwi and hapū, GDC cites long-standing co-management relationships and signed MOUs with regional iwi. In addition, GDC signed a Joint Management Agreement in 2015 with Ngāti Porou for co-management of the Waiapu catchment, which was the first of its kind in New Zealand. GDC was also involved with iwi scientists in developing a 'Mauri Compass' (described later in this report) as a means of expressing the mauri of a waterway in terms that could be used in policy and planning. GDC acknowledges that iwi will want to conduct their own monitoring in addition to that done by the Council. However, some iwi expressed concern that they did not have the resources to do this. Regardless, GDC is taking tāngata whenua values and mātauranga Māori into account and recognising Te Mana o te Wai. This is reflected through the Te Mauri Compass tool.

2.4.5 Horizons Regional Council (HRC)

HRC has established relationships with all 16 iwi and hapū in the region and is developing memorandums with each iwi. HRC has worked with Landcare Research to develop cultural health indices (discussed later in the report) that recognise Te Mana o te Wai and incorporate both a 'Western science' and a 'Māori science and world view'. HRC believe that the NPS-FM pushes councils to a more collaborative approach and that this could become an issue for both communities and ratepayers. Some communities may not have the capacity to engage in collaborative processes because the timeframes to do this are long and the time demands are high.

2.4.6 Tasman District Council (TDC)

TDC note that the community has high expectations concerning fresh water, but it feels that the community does not fully understand the costs of achieving these expectations.

TDC has however established collaborative freshwater and land advisory groups (FLAGS) of stakeholder representatives to consider objectives and limits in the Waimea and Tākaka catchments. TDC note that the FLAGS were designed to have diverse representation and include people with expertise in the primary sectors, environmental and resource management, recreation, energy generation and mātauranga Māori. However, members are directed to represent the community at

large rather than any one sector. With support from TDC, the FLAGs are also intended to lead engagement back to the wider community.

Although the Motueka catchment had not formally been established as a freshwater management unit under the NPS-FM, a collaborative governance group from the community will be asked to make recommendations for how the catchment will be managed in 2019 (the Motueka Cultural River Health Index discussed later in this report).

2.4.7 Hawkes Bay Regional Council (HBRC)

There is a growing expectation for mātauranga Māori monitoring to support the values identified in the NPS-FM and through working with tāngata whenua. HBRC is willing to begin but is unsure of how to do so or how to incorporate that information into other forms of data. This includes community monitoring and citizen science. Increased data collection to meet NPS-FM requirements also means HBRC has needed to hire staff and invest in improving data management systems. It is possible HBRC will need to pass on costs through rates, if it has exhausted other funding sources.

2.4.8 Summary

The main points from the above for the Taranaki Regional Council are that collaborative relationships are highly beneficial, however are formed over a long period of time. It was found that other regional councils who had formed collaborative groups where committees identified tangata whenua values and objectives to the Council, resulted in less strain on the capability and capacity of both the council and the iwi group. Collaborative process however, consumed more time and money than the consultative process.

It was also stated that mātauranga Māori is not an easy concept to comprehend so the education and involvement of Council staff on the topic would be very beneficial. These processes will be costly, as acknowledged by all councils. The challenge now is for the Taranaki Regional Council to find a cost and time efficient process to incorporate mātauranga Māori into freshwater monitoring and decision-making, which will be the focus of the remainder of this report.

2.5 Taranaki Regional Council and Mātauranga Māori

Eight recognised iwi have rohe within the Taranaki region. Ngāa Rauru Kīitahi, Ngāti Mutunga, Ngāruahine, Ngāti Ruanui, Ngāti Tama, Taranaki Iwi and Te Atiawa have signed Treaty of Waitangi settlement agreements with the crown and discussions between Ngāti Maru and the Crown are underway. Under the Treaty of Waitangi settlements, three iwi representatives from each of the Taranaki waka, are appointed to each of TRC's two main standing committees: the Policy and Planning Committee and the Consents and Regulatory Committee. This ensures tāngata whenua are part of regional governance and decision-making, including for freshwater management, through representation on these committees. The Treaty settlements will also allow iwi to improve their capacity and capability for involvement.

The review from the Ministry for the Environment on TRC's progress towards implementing the NPS-FM acknowledged that TRC is generally good about consulting with iwi, including on applications for resource consents (MfE, 2017). As part of the review of the Fresh Water Plan, TRC prepared and undertook targeted consultation to identify water bodies with outstanding or significant freshwater

values, including rivers with outstanding cultural, traditional and spiritual associations recorded in its GIS.

Iwi Management Plans (IMP) are also being considered in the development of TRC plans. The Council currently has the following IMPs: Ngāti Ruanui Environmental Management Plan (2012), Draft Ngāti Mutunga Iwi Management Plan and Ngaa Rauru Kiiitahi- Puutaiao Management Plan. A brief overview of these plans, as well as a small section on a hui with kaumātua of Ngaa Rauru on freshwater values, are described below.

2.5.1 Ngāti Ruanui Environmental Management Plan (2012)

The environmental management plan provided by Ngāti Ruanui identified their values as whakapapa, kaitiakitanga, tikanga, kotahitanga, and manaakitanga.

The mauri of all species is important to Ngati Ruanui, and they state in their plan that they “will work with territorial authorities to determine individual plans for the key catchment areas that it has identified and chosen.” They also strongly believe that the environment, including all indigenous species of fish, flora and fauna, are inter-related through whakapapa and all are considered taonga.

2.5.2 Ngāti Mutunga Iwi Management Plan (Draft)

Ngāti Mutunga have identified in their IMP that kaitiakitanga, tino rangatiratanga and tikanga are highly important values for their iwi.

Each river in the Ngāti Mutunga rohe has its own mana and has significant historical and spiritual importance to their people. This relationship is acknowledged by the Crown through statutory acknowledgments over several rivers in the Ngāti Mutunga rohe.

Ngāti Mutunga identify that in order to carry out their kaitiaki duties, kai species need to be abundant and healthy, and the water sources clean and safe enough to drink from and for kids to swim and play in the rivers. The mauri and access to waterways in order to carry out customary activities were also identified as being an issue.

2.5.3 Ngaa Rauru Kiiitahi- Puutaiao Management Plan

The key values clearly stated in the IMP for Ngaa Rauru Kiiitahi are mana motuhake, rangatiratanga, and Ngaa Raurutanga. These values underpin how Ngaa Rauru people carry out their role as kaitiakitanga. The Te Kaahui o Rauru (TKOR) organisation has been developed to manage this role for the Ngaa Rauru Kiiitahi iwi.

After physically meeting with members of Ngaa Rauru at an informal hui with the purpose of gathering information for this report, some predominant values of interest were established. These have been categorised into the National Objectives Framework’s national values as an example to provide perspective on what it could look like:

- Mahinga kai- members expressed their concern that because of the degradation of the water way, there was absence of traditional mahinga kai resources, which were previously used to manaaki manuhiri. This in turn had an effect on their mana because they were not able to carry out their traditional tikanga. Overall this was an example of the degradation of the mouri of the waterway. They expressed that the range of kai sources from the awa had decreased dramatically and some species, such as piharau and koura, that were once abundant in the awa are no longer found. Knowledge was also not able to be transferred down generations because there was a scarce

amount of food sources and therefore the opportunity to learn about food preparation and storage was rare.

- Water supply- the ability to drink the water from the Waitotara awa had completely diminished over a period of 25 years.
- Human Health for recreation- moko are no longer able to connect with the water way as the tangata whenua were able to via activities such as swimming and gathering of mahinga kai.

2.6 Challenges for Taranaki

In order to incorporate mātauranga Māori into freshwater planning and monitoring in Taranaki, iwi values need to be considered. In general, regional councils are able to gather information on Māori values through informal or formal hui and/or documents, iwi representatives and iwi communication officers as stated previously in the report. While the Council has information about values of some of the iwi, it needs to engage with all iwi as mātauranga Māori may differ between iwi.

It is important to note that a clear message obtained from other councils is that collaborative processes are generally long and expensive so the Council needs to develop a cost-effective process to develop a monitoring plan.

A number of tools can be applied that blend mātauranga Māori With western science to monitor cultural values in freshwater systems, and these are discussed in the next sections of the report. Following appropriate engagement with iwi, the Council could determine indicators and monitoring tools that incorporate mātauranga Māori alongside western science.

3 Frameworks and Monitoring tools

3.1 Planning Frameworks

The key to developing effective engagement between iwi/hapū and authorities is building a relationship. This report will not include how to develop the relationship between local authorities and iwi/hapū, however a paper written by Garth Harmsworth (2005) provides guidelines that could be useful.

The NPS-FM requires the values of the tangata whenua to be established and freshwater objectives and limits to be set. It is more feasible for the framework chosen to follow a set of protocols in order to do this, so both parties are at the same level of agreement and understanding. The Tikanga Māori based framework is an example of this.

3.1.1 Tikanga Māori-based framework

Tikanga is an important value in Te Ao Māori and to central government. It is also identified as an important value to Ngāti Mutunga and Ngāti Ruanui in their IMPs and would most likely be considered an important value to all iwi across the region. A tikanga Māori-based framework built on mātauranga Māori provides guidelines or a process of steps aimed to identify issues and then achieve desired freshwater planning and management outcomes for Maori (Robb et al. 2015; Awatere and Harmsworth 2014; Harmsworth et al. 2013; Harmsworth et al. 2015; Harmsworth et al 2016; Jefferies and Kennedy, 2009; Scheele et al. 2016). This framework is consistently recommended by Landcare Research when integrating mātauranga Māori into freshwater management as it applies order from start to finish of the process that is agreed upon by all parties.

An example of possible tikanga Māori-based framework steps are as follows, but could vary between type of project and which iwi/hapū are using it:

1. Mana Whakahaere: a treaty-based planning framework is used for engagement and policy development where the Treaty of Waitangi principles are the core of the framework (co-governance, co-planning and co-management).
2. Whakamāramatia ngā Pou Herenga: tangata whenua values (metaphysical and physical as stated in the core values section) are defined and reflected in engagement processes. These values can be represented in many different forms.
3. Whakamāramatia ngā Huanga/Moemoeā: shared outcomes and visions are defined at the beginning of the process.
4. Whakamāramatia ngā Uaratanga: goals and objectives are established to achieve these outcomes. Involvement of iwi/hapu in freshwater management is integral to meeting requirements of the NPS-FM.
5. Whakamāramatia ngā Ritenga: define limits for the co-management of natural resources.
6. Whakamāramatia ngā Kaupapa: rules, methods and policies are developed.

7. Whakamāramatia ngā Aroturukitanga: implementing a monitoring programme where the links between science and cultural indicators are identified and accounted for. These help measure progress towards or away from the stated goals and outcomes.
8. Whakamāramatia ngā Mahi/Mahinga: actions on the ground that demonstrate kaitiakitanga and progress iwi/hapū towards their goals/objectives/aspirations through tangible projects. This could include developing collaborative processes with councils.

This framework example is important in engagement processes and management. The most important values of this framework are co-governance, co-planning and co-management between authorities and the Māori community, and that the relationships should be maintained and strengthened over time. These are also the main principles of the Treaty of Waitangi and this framework has been used and verified as successful in increasing iwi/Māori participation in freshwater management decision-making and cultural monitoring (NIWA, 2017).

3.2 Monitoring Frameworks and Tools

After the planning frameworks are established, monitoring frameworks and tools need to be established to measure progress. Monitoring is used to articulate values as well as to assess (qualitatively or quantitatively) and monitor changes to the environment.

To give effect to the NPS-FM, Council is required to provide a monitoring approach that includes at least mātauranga Māori and a number of measures to monitor progress including the Macro Invertebrate Index (MCI) and measures of the health of indigenous flora and fauna. To do this, Council first needs to establish indicators that reflect Māori values and can show changes in the state of environment on matters of interest. We can align this vocabulary with that of the NOF and refer to an indicator as an attribute relevant to the specified values of the iwi/hapū being provided for. The limitation of incorporating mātauranga Māori into science-based monitoring is that while quantitative values can easily be assigned a metric, values such as wairua, tapu and mauri cannot.

A report on understanding freshwater taonga fish populations (Williams et al., 2017) acknowledged how mātauranga Māori has been and can be incorporated into freshwater monitoring of taonga species. The report recognised that along with other qualitative and scientific methods, mātauranga Māori can be used to fill in spatial and temporal details (e.g abundance and distribution of taonga species) in the monitoring process.

There are a wide variety of tools that have been and are currently being used by resource managers and iwi/hapū all across the country that blend mātauranga Māori and western science to assess cultural values in freshwater systems. These monitoring methods can also identify attributes and indicators relevant to the iwi/hapū or community they were developed for. Some of these tools are also being adapted for use from different Māori groups around New Zealand, because as stated before, not all iwi/hapū have the same values and interests. Resource managers must engage with Māori in their region to get a better understanding of how they measure their values. Discussed below are some examples of cultural monitoring tools including indicators currently being used that could be relevant, or could be adapted and used, for monitoring in the Taranaki region.

3.2.1 Cultural Health Index (CHI)

Originally developed for rivers and streams, the cultural health index (CHI) arose from concerns of Te Rūnanga o Ngāi Tahu and the Ministry for the Environment that limited attention had been paid to the incorporation of Māori values in river management (Nelson and Tipa, 2012; Tipa and Teirney, 2006; Jefferies and Kennedy, 2009, Hutchings et al, 2017). The CHI recognises and expresses Māori values through indicators and links mātauranga Māori to western scientific methods. Values recognised in the CHI are mauri, whakapapa, wāhi tapu and wāhi taonga, rangatiratanga, mahinga kai, taonga, kaitiakitanga and tikanga Māori (mana and mana whenua).

The CHI and its assessment methods are becoming commonly accepted and used by many Māori groups around New Zealand because of its ability to be adapted to suit specific requirements. Initially developed and piloted by Ngāi Tahu on the Taieri and Kakanui rivers in the South Island, refinement and testing has been carried out by the Ngāti Kahungunu iwi on the Tukituki River in Hawkes Bay. More recently, iwi/hapū groups in the Motueka catchment have adapted and applied the CHI (discussed in section 3.2.3). It has also evolved to help Māori participate in other resource management processes such as coastal areas, kauri systems, estuaries and wetlands.

The structure of the CHI is made up of three components: site status; mahinga kai; and a cultural stream health measure. These components are scored individually and are then brought together in an overall score. The cultural indicators that are monitored in this model are heritage sites, taonga species (flora and fauna), water quality and mahinga kai- which are collectively assessed as mauri.

The first part of the site status component assesses the significance of a freshwater site to Māori, to distinguish whether it is a traditional site or a contemporary site. The second part determines whether Māori would return and use the site in the future, believing it is able to sustain the cultural uses it has had in the past, or not.

There is then four parts to the mahinga kai component of the CHI, each scored from 1-5. Examining the health of mahinga kai recognises that the mauri is represented by the physical characteristics of a freshwater resource. The first part requires the identification of all mahinga kai species present at the site, and scored depending on the number of species present. The second part is a comparison of the species present today with the species sourced traditionally from the site (which is information that would be obtained through mātauranga Māori). The third component is to assess tangata whenua access to the site where 1 is no access and 5 is legal and physical access. The fourth and final component requires an assessment of whether they would return to the site in the future and use it as they did in the past (for gathering kai, traditional practices etc.). There are only two ratings and they are No=1 and 5=yes. These scores are then averaged to produce a single score out of 5.

The third and final component of the CHI is the cultural stream health measure (CSHM). Rating eight indicators on a scale from 1-5 and then averaging them gives an overall score. The indicators assessed in the CSHM are catchment land use, riparian vegetation, use of the riparian margin, riverbed condition, manipulation of the river channel, water clarity, and water flow and water quality. Originally there were 19 indicators, however statistical testing of correlations and regressions between indicators was carried out to ensure several indicators were not assessing the same condition. This also produced an effective measure that could be repeatable and consistent, irrespective of iwi or water catchment. These indicators are the most objective and accurate reflections of tangata whenua evaluations of overall stream health.

3.2.2 State of the Takiwā (SoT)

State of the Takiwā (SoT), developed again by Te Rūnanga o Ngāi Tahu, is based on the ki uta ki tai approach. It is described as “an environmental monitoring and reporting process that integrates mātauranga Māori and western science...that takes into account tangata whenua values” (Nelson and Tipa, 2012; Pauling et al 2007; Pauling and Arnold, 2009; Orchard et al 2012). The major objective of SoT is to ensure that tangata whenua can build robust and defensible information on the health of the environment, which can be used to inform policy planning from external agencies such as local councils. The SoT approach takes into account Māori cultural values including mauri and mahinga kai, as well as scientific measures of environmental and ecosystem health to help make better decisions on how to manage these into the future.

Three themes are reflected in SoT: mahinga kai; mauri, mana and manaaki; and finally mātauranga. Mātauranga Māori enables Ngāi Tahu to provide historical accounts and knowledge of the past and changes, particularly of the health and wellbeing of the mauri, that have occurred to the natural environment in their Takiwā.

Mahinga kai is the main contributor with which Ngāi Tahu identify themselves with the environment. Mahinga kai customs are central to their ongoing spiritual, economic, social and cultural well-being. They require that in order to fulfil this relationship, species and their habitat are maintained in pristine condition.

Mauri, mana and manaaki are integral values that Ngāi Tahu require to be part of any environmental monitoring and reporting. Mauri is a taonga that provides a spiritual link to the past, present and future for Ngāi Tahu. Upholding the mauri for Ngāi Tahu has a direct relationship to their ability as an iwi/hapū or whanau to provide manaaki to their manuhiri and in turn has an effect on their mana.

The Takiwā online data-base system is a diagnostic tool for identifying issues and sites of concern to iwi and allows for remedial action to be prioritised, implemented and monitored for performance over time. It is also used to make the information more defensible, accessible, usable and quantitative. The baseline information is collected through past interviews, manuscripts and literature. It can also be collected through engagement with Māori, particularly kaumātua who have significant knowledge on the past use and condition of the waterway (this is the incorporation of mātauranga Māori). Current information and data is provided by councils from CHI, SHMAK (discussed later in the report) and interviews. The collection of this information forms the core of the current state of the Takiwā. It is important to be able to see changes in state of the environment over time and find out why this has happened.

Monitoring is then carried out with the CHI or SHMAK process depending on the site. Electric fishing surveys and E. coli testing are also used. Monitoring forms and analyses are carried out on the data base and the reporting/policy development is the final product of the monitoring programme. Ngāi Tahu then use that information to complete the cycle over again.

3.2.3 Ngā Atua based framework

The Ngā Atua based framework is based on whakapapa- an extremely important value across all of the Māori culture used as a means of identity. In the Māori worldview, the origin of the world and the universe can be traced back through a series of genealogical webs, beginning with nothingness to a supreme god, to emerging light, to the creation of Ranginui (sky-father) and Papatūānuku (earth-mother) to the birth of their children who are deemed as the Atua (departmental gods). Wedged between the darkness of their parents, the children prised apart Ranginui and Papatūānuku in order to create light and flourish. Ranginui formed the sky and rain as he wept for his wife and Papatūānuku formed the land in order to provide sustained nourishment for all her children. Following this was the creation of all life on Earth.

In this sense, Māori are placed in an environmental context with all other flora and fauna. As part of this ancestry, a large number of responsibilities and obligations were conferred on Māori to sustain and maintain the wellbeing of the people, communities and natural resources. Māori believed that small shifts in the mauri or life force of any part of the environment, for example through use or misuse, would cause shifts in the mauri of immediately-related parts, which could eventually affect the whole system. This framework has a ki uta ki tai approach, like the SoT, that measures the ecosystem or Takiwā as a whole.

The Motueka Cultural River Health Index (Environs Holdings Ltd and Te Uri o Hau Settlement Trust, 2011) is an example of using the Ngā Atua domains framework. Tiakina Te Taiao, a kaitiaki group from the Motueka catchment used a Ngā Atua domains framework to organise indicators based on the Cultural Health Index from Tangaroa (estuarine and river ecosystems) to Tāne-mahuta (terrestrial ecosystems) for a ki uta ki tai approach (Table 1).

Table 1 List of the Motueka Cultural River Health Index indicators categorised using the Ngā Atua domains framework.

Atua Domain	Indicator
Tangaroa (atua of the seas, rivers and lakes)	water clarity, water flow, water quality, shape and form of river, riverbank condition, sediment, insects, fish
Tāne-mahuta (atua of the forests and birds)	riparian vegetation, catchment vegetation, birdlife (species), taonga and pests
Haumia-tiketike (atua of wild or uncultivated foods)	mahinga kai (mahinga kai score), rongoā (traditional medicine)
Tūmatauenga (atua of war and people)	human activity/use of river, access (mahinga kai score), cultural sites
Tāwhiri-mātea (atua of wind and air)	smell
Rongo-mā-Tāne (atua of peace, harvested resources)	cultivated food (mahinga kai score)

Indicators are assigned a score from 1-5 and then averaged to calculate a cultural stream health measure and mahinga kai score. The aim of this process to provide a Māori perspective to the state of the environment using mātauranga Māori.

3.2.4 Mauri of the Waterways Outcomes and Indicators Tool Kit

The mauri of waterways outcomes and indicators tool kit (Nelson and Tipa, 2012; Jefferies and Kennedy, 2009) is intended to provide tangata whenua with a tool to evaluate whether the mauri of waterways within their rohe is in good health, and to understand the contribution councils and Crown agencies make in achieving this goal.

There are several outcomes aimed to be achieved by this framework. For Māori these include the ability to assess the condition of the environment in terms of the Māori values mana, mauri and tapu, and the extent to which councils and other parties contribute to this. For councils the outcomes and indicators kete will present Māori aspirations and a Māori world view to staff and decision makers using these tools, as well as providing a practical understanding of aspects of kaitiakitanga. It also aims to allow councils to assess their performance over time and against neighbouring and other councils.

This tool kit provides worksheets developed by Māori researchers with experience in environmental resource management and planning and policy writing, which can be used by council staff and tangata whenua to collect information and work towards fulfilling the objectives.

The worksheets can be used in a purpose-specific way where instead of using the whole kete, tangata whenua or councils can use indicators that relate to a specific topic or area of interest. For example, a purpose-specific use by iwi may be evaluating council plans, policies and practices and testing whether these reflect tikanga Māori, and Māori environmental values and goals. An example of a purpose-specific use by Council may be evaluating Council policies and practices in order to better understand and provide for mātauranga Māori and kaitiakitanga, thereby helping to build bridges of understanding.

The three kete listed are named according to the tikanga on which they are based. They are essentially measured by indices and associated indicators. The indicators are based on a series of questions and descriptive statements (called measures) ranked at numerical levels. An evaluation worksheet is then provided at the end where the scores from the indicators are added up and an overall score for each index is calculated. While it may seem complex in context, the worksheets provided by Jefferies and Kennedy's (2009) are straight-forward and are easily used by both tangata whenua and councils.

Kete 1: Mana and Mana whenua

As kaitiaki, Māori have a responsibility to define themselves in terms of their ancestral lands, and they need to preserve it in a way that is meaningful to them. The term mana whenua commonly refers to the authority tangata whenua have over their lands and tribal mana is considered to be diminished where Māori fail in their duty as kaitiaki of ancestral lands (Jefferies and Kennedy 2005). The outcome of this kete is that mana whenua is appropriately respected and this can be measured through three indices and their associated indicators (example in Table 2).

Table 2 List of indicators associated with one of the three indices in the Mana Whenua Kete from the Mauri of the Waterways outcomes and indicators tool kit.

Index	Indicators
1. Extent to which Local Authorities acknowledge Mana Whenua	Whether respondent agrees that local Authority acknowledges mana whenua.
	Extent to which iwi/hapū tribal boundaries are known to Council.
	Whether Statutory Plans recognise and provide for mana whenua.
	Extent to which Council monitoring has determined whether Anticipated Environmental Results (AERs) relating to mana whenua provisions have been achieved.
	Extent to which Council provides for mana whenua input into decision making.

Kete 2: Mauri and the Mauri of Waterways

Mauri is often defined as the life-force of an object (living or otherwise). All things in Te Ao Maori are considered to have mauri and the maintenance and protection of mauri for any waterway is a critical responsibility for kaitiaki. The outcome of this kete is that mauri of all waterways are in optimum health, which is measured through five indices and their associated indicators (example in Table 3).

Table 3 List of indicators and measures associated with one of the five indices in the Mauri of Waterways Kete from the Mauri of the Waterways outcomes and indicators tool kit.

Index	Indicators and measures
5. Physical evidence that mauri is protected	Whether respondent agrees that mauri is protected (measure of level of agreement)
	Characteristics of the water (safe to drink, water clarity, scum/foam visibility, taste, smell, feels oily, sediment/slime on riverbed)
	Characteristics of the waterway and its immediate environment (presence of stock in margins and waterway, riparian vegetation, plant species within margin, river flow)
	Characteristics of waterway inhabitants (fish species abundance, diversity and health)
	Presence of potential human threats (withdrawal of water from waterways, incidence of point or non-point discharge)

Kete 3: Tapu and Wāhi Tapu

Tapu is regularly translated as untouchable, sacred and associated with the gods. The protection of wāhi tapu is of utmost importance to tangata whenua. The outcomes and indicators included are intended to provide a series of tools for both the evaluation and protection of tribal wāhi tapu. The outcome of this kete is that wāhi tapu are protected, which is measured through four indices and their associated indicators (example in Table 4).

Table 4 List of indicators and measures associated with one of the four indices in the Wāhi Tapu Kete from the Mauri of the Waterways outcomes and indicators tool kit.

Index	Indicators and measures
4. Extent to which wāhi tapu are identified and protected	Whether respondent agrees that wāhi tapu are widely identified and protected (measure of level of agreement)
	Physical characteristics of wāhi tapu (condition, level of permission for the site to be modified)
	Characteristics of immediate environment (whether site location is publically or privately owned, description of immediate environment)
	Presence of threats (type of threat, whether use of the sites is consistent with tikanga, level of statutory protection for the site)

3.2.5 Te Mauri Model

Te Mauri Model (Nelson and Tipa, 2012; Hutchings et al, 2017; Rehu and Morgan, 2012) is based on the ability to understand the interconnectedness of all living things and to measure sustainability in a holistic manner. Originally developed for engineering purposes, it can be adapted for use in freshwater decision-making processes, improving resource management by integrating Te Ao Maori values and knowledge into western models of sustainability.

The Mauri Model assesses impacts of anthropogenic activities on the mauri based on indicators from four domains (ecosystem, cultural, community and economic) each weighted differently depending on the project or activity and the people that are involved. Performance indicators (at least three) for each domain are scored individually (-2 to +2), weighted (depending on the environment) and then given a final score. The indicators (Table 5) can be rated on an integer scale from -2 (denigrated), -1 (diminishing), 0 (maintaining), +1 (enhancing) to +2 (fully restored). This may also be known as the Mauriometer or the Mauri Barometer Assessment.

Table 5 List of possible indicators for the Te Mauri Model regarding freshwater ecosystems. Derived from <http://www.mauriometer.com/DataEntry/index>

Domain	Ecosystem	Cultural	Community	Economic
Associated Indicators	Impact on waterways	Inclusion of local knowledge	Fishing	Implementation cost
	Indicator species biodiversity	Kaitiakitanga	Layout	Maintenance cost
	Riparian Margins	Mahinga kai	Private land use	Repair costs
	Water Quality	Resource gathering	Public health	Water outfall
	Pollution levels	Sacred and spiritual places	Aesthetic appeal	Industrial water use
	Impact on flora and fauna	Traditional knowledge	Fishing	Eco-tourism
	Nutrient loss from catchment	Traditional rituals	Employment	
	Life supporting capacity of water		Access	

3.2.6 The Mauri Compass

The Mauri Compass (Hutchings et al. 2017), designed by Te Rūnanga o Turanganui a Kiwa and Gisborne District Council (GDC), is used to assess and restore the mauri of the region’s waterways. GDC worked with iwi scientists to develop the Mauri Compass to help quantify and visualise mauri in a way that can be integrated with management and used in policy and planning. Mauri is a key value for freshwater in the Gisborne region and the mauri compass tool is a good example of a tool at the interface of Māori knowledge and western science.

The tool assesses the mauri of a waterway using 12 compass points (indicators), each rated between 1 and 5. Compass knowledge and its attributes are stored inside the three kete of tangata whenua (people), tane (land) and tangaroa (water), enabling a ki uta ki tai approach.

The attributes are; tangata whenua, wairua, mahinga kai and cultural, habitat, biodiversity, water biology, water chemistry, tuna growth rates, tuna species, tuna abundance and population and tuna biological health and can be rated through questions developed by the effected tangata whenua and resource managers (example in Table 6).

Table 6 Example of potential/typical questions for each indicator regarding freshwater from "The Mauri Compass by Ian Ruru. "

Compass Point/ indicator	Typical Question for a River
Tangata Whenua	How strong are the people’s connections with the river?
Tikanga	How prevalent are the cultural practices with the river?
Wairua	How strong are the spiritual connections with the water?
Biodiversity	How diverse (bugs, birds and fish) Is the river life?
Chemistry	How chemical free is the river?

3.2.7 Wai Ora Wai Māori Tool

The Wai Ora Wai Māori tool provides a robust, holistic and complementary data set when used alongside scientific measures (Awatere et al. 2017). Landcare Research recommends that institutions developing plans and policies for improved freshwater management use this tool to improve collaboration, and to identify key attributes and measures that are meaningful and relevant to iwi/hapū groups.

Developed over several years but more recently refined and tested in the Waikato Region collaboratively with Waikato-Tainui researchers and a technical advisory group, the Wai Ora Wai Māori tool provides qualitative and quantitative measures for stated attributes consistent with the NOF standards. This tool aims to identify measures that demonstrate the holistic nature of Te Ao Māori and mātauranga Māori.

The structure of the tool can be tailored by any other iwi/hapū/kaitiaki group wanting to apply their own values and attributes, however this tool currently identifies values important for the Waikato-Tainui rohe. These values include mahinga kai, whakapapa, whanau, kaitiakitanga and mauri and are categorised under three main domains; biophysical, community connectedness and metaphysical.

Under each domain are two attributes (example Table 7) and the scales for these attribute states are consistent with those of the NOF where they are rated on a scale form 1-4 (or A to D).

Table 7 List of attributes under the three domains chosen by tangata whenua in the Waikato-Tainui rohe for the Wai Ora Wai Maori Tool.

Domain	Attribute
Taha Kikokiko (physical or biophysical)	Kai is safe to eat
	Kai has a strong whakapapa
Taha Whanau (social)	Whanau satisfaction
	Kaitiaki are effective
Taha Wairua (metaphysical or spiritual)	Condition of mauri
	Condition of kaitiaki/tipua/taniwha

3.2.8 The Waikato River Pilot Report Card

Currently a roopu of five representatives from Waikato River Iwi are developing a report card that measures the state of cultural health and wellbeing indicators. The Waikato River Report Card is designed to communicate the state of the cultural, social, environmental and economic health and wellbeing of the catchment. The report card has a holistic monitoring approach and combines mātauranga Māori and western science. The report card is divided up into 8 themes called taura, that are considered to be key elements of importance to Waikato communities with regard to the awa, and for guiding its restoration. These can then be broken up into subgroups and each of these have their own indicators (examples in Table 8). The taura are then given a grade A-D, aligning with the NOF.

Table 8 Taura and examples of associated indicators of the Waikato River Pilot Report Card.

Taura	Sub Groups/Indicators
Kai	Fisheries and kai (e.g. tuna, whitebait)
Water Quality	Water quality (e.g. clarity, nutrients)
Sites of Significance	Sites of Significance (e.g. waahi tapu, place names, historic sites)
Ecological Integrity	Ecology, biodiversity, physical character
Experience	Access, human health (e.g. contaminants), contact recreation (e.g. E.coli), rubbish, intergenerational response, information/enabling tools, education.
Water Security	Water allocation/flow, efficiency and use, environmental flows and hydro ramping
Economics	Economics (e.g. GDP)
Effort	Effort in restoration (e.g. money invested)

3.3 Other Scientific Monitoring Tools

3.3.1 The Stream Health Assessment Kit (SHMAK)

The Stream Health Assessment Kit (SHMAK) is a tool that monitors and assesses flow and catchment conditions, habitat quality (flow velocity, water pH, water temperature, water conductivity, water clarity, composition of the stream bed, deposits, and bank vegetation) and stream bed life

(invertebrates and periphyton/algae). Currently the kit is being used by the Taranaki Regional Council education/freshwater staff (Environmental Science – Freshwater staff) to educate and build an awareness of scientific measures of stream health to iwi/ hapu and schools within the Taranaki region. While the kit does not directly take into account any form of cultural monitoring it can be used to compare traditional knowledge on stream health to the western science view. Some iwi have purchased the SHMAK kits for their water monitoring programmes.

3.3.2 Stream Habitat Assessment Protocol (SHAP)

The Stream Habitat Assessment Protocol (SHAP) is a set of practical, cost-effective and standardised protocols for the assessment of physical habitat in New Zealand waterways. These protocols were produced in response to a request by regional councils to provide guidelines and preferred methods for the assessment of physical habitat conditions within stream and river systems. Physical habitat is the living space for all in-stream flora and fauna and sets the background for any assessment of the health of a waterway. SHAP assesses habitat parameters such as hydrology and morphology, the channel cross section, the longitudinal channel, the in-stream habitat, and riparian cover and vegetation.

3.4 Monitoring in Taranaki

As noted earlier European settlement and agricultural development (land clearing) has had a dramatic impact on the environment in Taranaki and elsewhere in New Zealand. Quantitative environmental monitoring commenced in Taranaki in the 1970s by government ministries when much of the agricultural development had occurred. The Taranaki Catchment Commission, the first processor of the TRC, was formed in April 1970 and had meagre resources. So there is limited historical quantitative data and none on pre European environmental conditions. However, qualitative data is available from tangata whenua and this is an important part of mātauranga Māori.

There are many programmes and tools the Taranaki Regional Council currently use to monitor the environment in the region. The SHMAK tool is being used by the Council and iwi across the Taranaki region to monitor stream health. This has enhanced the relationship between tangata whenua and the Council.

The current State of the Environment Monitoring (SEM) programmes carried out by the Council and associated indicators are discussed below. It is not possible to have SEM monitoring sites on every river, and sites have been selected to reflect representative areas in the region. SHAP is used at every site monitored.

The Freshwater Macroinvertebrate Fauna Biological Monitoring Programme is used to report on ecological health for SEM. This is assessed using the Macroinvertebrate Community Index (MCI), a tool that scientifically assesses stream health which was developed in this region. There are 59 sites where this monitoring is carried out with their location and iwi boundaries shown in Figure 1. The NPS-FM has required, as a minimum, that councils include the MCI in their freshwater monitoring. Specific equipment and access to laboratory facilities are integral to the MCI process, therefore restricting its use to researchers and some resource managers.

The Freshwater Physiochemical SEM Programme is used to monitor the physical and chemical state of freshwater for SEM. Measures include water clarity, conductivity and acidity (pH), nutrient levels, dissolved oxygen levels (DO) and the amount of oxygen consumed in the breakdown of organic matter (BOD). Also included in the physiochemical programme is the monitoring of concentrations of faecal contamination indicator bacteria such as E. coli. The current SEM monitoring sites for the Freshwater Physiochemical Programme are displayed in Figure 2 with iwi boundaries.

Taranaki Regional Council is currently working towards developing a SEM programme for freshwater fish. Currently, it is proposed that only regionally distinct species will be surveyed, including brown mudfish, three kokopu species, koaro, lamprey, inanga and the longfin eel. This programme is in the early stages of implementation, with some sampling sites yet to be confirmed.

The flora in riparian zones is well understood, particularly where planting has occurred under Council riparian plans. Fauna in riparian zones was studied which demonstrated the good succession promoting development of riparian plantings, with increases in native plant species richness, vegetation cover diversity and structural complexity (Krejcek 2009).

Compliance monitoring of resource consents is an important role for the Council to determine the effects of activities on land and water. Inspections and sampling are carried out as a part of these comprehensive monitoring programmes and results presented to the community.

The Taranaki Regional Council also has a comprehensive Riparian Planting Management Programme used to maintain and improve water quality. Riparian zones filter nutrients, sediment and bacteria that leave the land as run-off, and shade streams. The Council's working with land owners to ensure all Taranaki streambanks are protected by riparian (streamside) fencing by 2020.

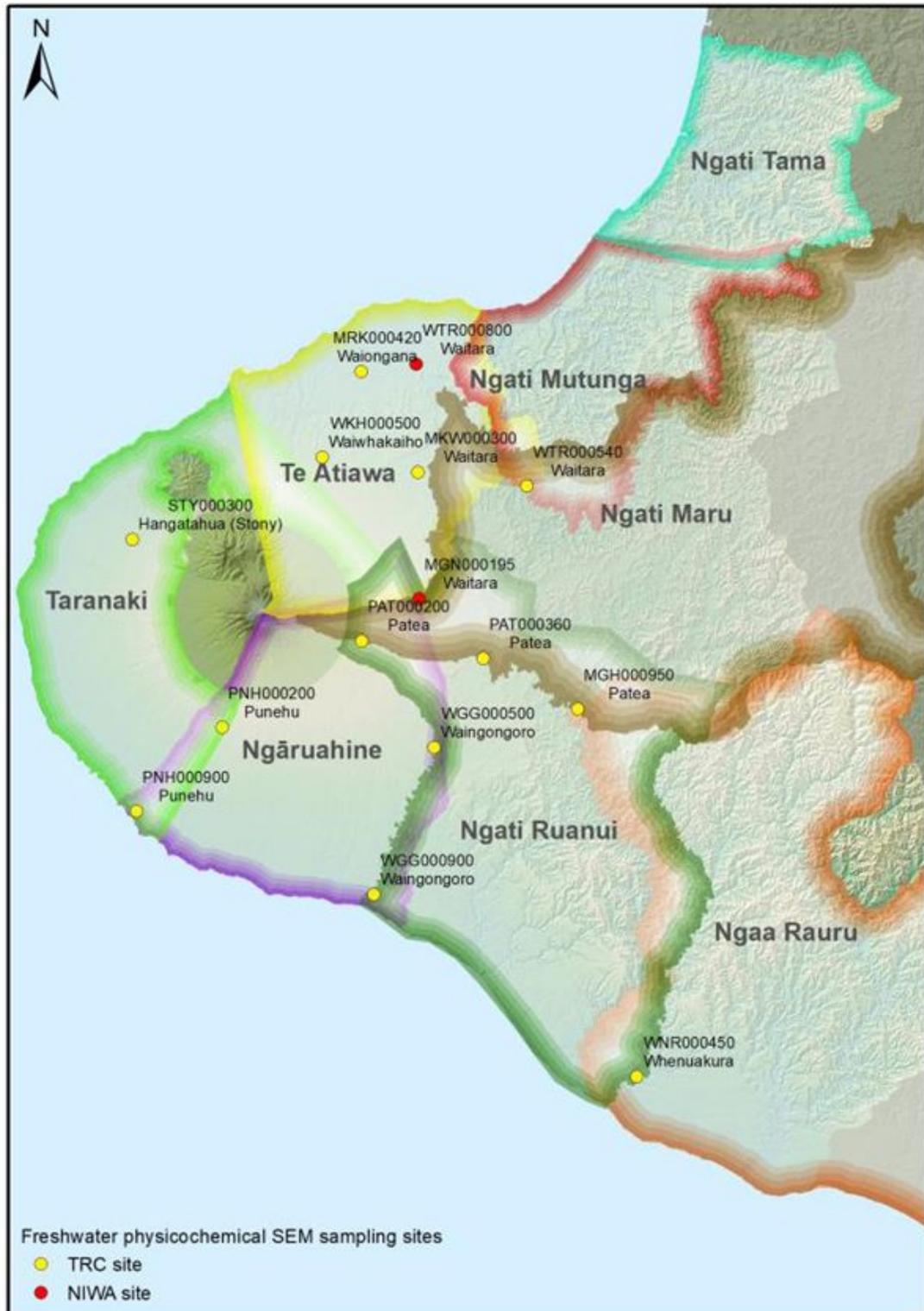


Figure 2 Location of the Freshwater physicochemical SEM sampling sites and iwi rohe boundaries.

Under the NPS-FM, Councils are required to group their regional waterways into Freshwater Management Units (FMU). Councils are then required to work on setting objectives, limits and other management measures for these FMUs and develop a monitoring plan that incorporates mātauranga Māori. This is to avoid unnecessary complexity and keep management efficient and cost-effective. Taranaki's proposed FMUs (in the Draft Freshwater and Land Management Plan for Taranaki) are to divide the catchments into four units, based on shared values, land use and physical characteristics (Table 9). Figure 3 shows a proposed map of these FMUs.

Table 9 Table of the proposed Freshwater Management Units from the Draft Freshwater and Land Management Plan for Taranaki.

<i>Unit A- Outstanding freshwater bodies</i>	Hangatahu (Stony) River and Maketawa catchment, immediately upstream of but excluding the Ngatoro Stream catchment, Lake Rotokare Scenic Reserve
<i>Unit B- Waterways on Mount Taranaki and the ring plain</i>	Land is farmed intensively. Catchments are small and subject to relatively high consumption and waste discharge pressures due to dairy and urban land use. Catchment water flow rise and fall rapidly in response to rainfall.
<i>Unit C- Waterways on the northern and southern coastal terraces</i>	Land is farmed intensively with a greater demand for irrigation. Southern coastal terraces have predominantly short, small spring-fed streams that discharge over the coastal cliff. Northern coastal terraces include lower reaches of rivers which are subject to large tidal ranges and naturally high sediment loads
<i>Unit D- Waterways in the eastern hill country</i>	Land predominantly used for dry stock farming and plantation forestry. Waterways are typically deeply incised rivers fed by short, steep tributaries and have a branchlike drainage pattern which, as a result of the steep easily erodible geology, generally carries a high load of sediment.

It is important to acknowledge that Taranaki Regional Council are not the only regulatory authority involved in freshwater management. There are other organisations such as the Ministry for Primary Industries (MPI) and Department of Conservation (DOC) who impose regulation and monitoring obligations on the management of freshwater fisheries. For example, MPI manages the tuna and whitebait fisheries while the Council is responsible for the protection of their habitats. Further the Council as well as DOC have specific responsibilities to manage fish passage in our waterways under the Freshwater Fisheries Regulations 1983 (Fisheries Act 1983).



Figure 3 Proposed Freshwater management units for the Taranaki region in the Draft Freshwater and Land Management Plan.

3.5 Summary of Monitoring Tools

This section has discussion on some monitoring tools identified above that are being used to incorporate mātauranga Māori into freshwater monitoring in New Zealand. These tools have included mātauranga Māori in the form of Māori indicators (both qualitative and quantitative) and in the form of using mātauranga Māori to fill knowledge gaps (such as in the State of the Takiwā). The Ngā Atua domains framework also gives an example of incorporating mātauranga Māori by categorising western science indicators into a Māori framework. It is important to note here, that these tools cannot be directly used in the Taranaki Region, as the tools are more specific to the area and people that they were developed for.

However, there are common themes and indicators represented across the frameworks and monitoring tools discussed that provide for mātauranga Māori in freshwater monitoring. These indicators could form a framework and the basis of discussions with iwi authorities in Taranaki when developing a monitoring plan. Some of these indicators important to Māori also link with those indicators of importance to western science. Hence in an attempt to synthesize Māori indicators with those of western science, the quantitative western science measures are used as potential indicators of Māori values.

As noted in section 3.4, the Council is one of many regulatory agencies that have freshwater responsibilities and who undertake monitoring. For example, the Council, under the RMA, is responsible for the habitat of flora and fauna while MPI are responsible for freshwater fisheries management (quota system). Therefore, some Māori indicators can potentially be measured by monitoring that is already being conducted by the Council and by other environmental monitoring organisations in New Zealand (Table 10).

Table 10 Table synthesizing common Māori freshwater indicators found in the tools studied, with current Taranaki Regional Council freshwater indicators and how TRC monitors/has a role in effecting the indicators. Other monitoring statutes involved are also included.

Māori Value	Existing Māori indicators	Western science indicators that link to/represent Māori indicators	TRC monitoring/role	Other statutes monitoring and roles
Kaitiakitanga and whakapapa	Role passed down through generations	Consent conditions, compliance monitoring and enforcement	Consent authority Iwi reps. on TRC planning and regulatory committees Consultation process with iwi	
Mauri (physical) and condition of mauri	Water clarity	Suspended solids Turbidity	SEM	
	Water flow	Water flow	SEM Consultation process with iwi	
	Scum/foam	Visual/photo	Recorded in field as a comment	

Māori Value	Existing Māori indicators	Western science indicators that link to/represent Māori indicators	TRC monitoring/role	Other statutes monitoring and roles
	Oily	Visual Hydrocarbon sheen Natural hydrocarbon sheen Natural Iron oxide in the water	Compliance monitoring of consents Recorded in field as a comment	
	Smell	Odour	Recorded in field as a comment	
	Taste			
Mauri, Mahinga Kai	Mahinga kai diversity Mahinga kai abundance	Surveys of Tuna, Inanga, Piharau, Ika Surveys of Koura, Kakahi, Porohe,	Fish Monitoring Programme (surveys kokopu, piharau, koaro, inanga and tuna) Compliance monitoring of fish passes Wetland and riparian programme monitoring Compliance monitoring of fish passes	DOC native fish requirements (Fisheries Act 1983) MPI commercial eel and other species quota
Kai is safe to eat	Mahinga kai health & Mahinga kai habitat	Water temperature Suspended sediment Substrate type Water flow pH DO and BOD5 Nitrate Ammonia Invertebrates E. coli	SEM MCI (as a general stream health monitor) SEM fish distribution monitoring SHAP	
	Other taonga species (watercress, harakeke)		Riparian programme farm inspections for harakeke (and watercress)	

Māori Value	Existing Māori indicators	Western science indicators that link to/represent Māori indicators	TRC monitoring/role	Other statutes monitoring and roles
	Pest species	Surveys of catfish, koi carp, trout Monitoring of invasive plant and algae species	Biosecurity Plans (didymo) Limited SEM for invasive species	Biosecurity Act
	Riparian vegetation Stock access	Riparian planting and fencing	Riparian Planting Programme (GIS) Compliance monitoring and enforcement SHAP	
	In-stream structures	Fish passages Biodiversity	Consents Orphan structure programme	DOC Fish passage management (Fisheries Act 1983)
	Channel modification	Composition of the stream bed Water flow Habitat	SEM Compliance monitoring (for culverts and fords)	
	Treated waste discharges	Point source discharges	Compliance monitoring of consents Permitted activities	
	Other discharges	Non-point source (indication from Ammonia, E.coli, Suspended solids, BOD5)	SEM Riparian Planting Programme Pollution incident response and investigations	
Mauri (spiritual), cultural sites	Access to traditional sites	Identify sites Access by agreement with land owner		
	Access to mahinga kai sites	Identify sites Access by agreement with land owner		
Ki uta ki tai-connection between mountain and sea, holistic approach	Variety of plants and animals in their natural environment (biodiversity)	Fish passage Water flow Riparian plants Flora and fauna	SEM Orphan structures programme Biodiversity programme	

Māori Value	Existing Māori indicators	Western science indicators that link to/represent Māori indicators	TRC monitoring/role	Other statutes monitoring and roles
	Catchment land use	Sediment Nutrients (MCI) Land use categories	SEM MCI GIS	

4 Conclusion

Mātauranga Māori is a form of indigenous knowledge based on long-standing interactions through space and time between people and their surrounding environments. Mātauranga Māori can be represented through values, concepts, protocols, places and names and is passed down through generations.

To give effect to the NPS-FM and successfully incorporate mātauranga Māori into freshwater monitoring and decision-making, the Council should take into account tangata whenua values and develop appropriate policies, rules and a monitoring tool that reasonably reflects those values using western science provisions.

Māori values important to freshwater include kaitiakitanga, tikanga, mana, and whakapapa. These can be represented through the mauri of a waterway, mahinga kai and mahinga kai sites, taonga species and traditional sites such as wāhi tapu. From the mountains to the sea - ki uta ki tai is another important concept. Mātauranga Māori however, is a sensitive topic and is very iwi specific.

For the Council to obtain an accurate representation of the values of tangata whenua in Taranaki, it needs to engage with the eight recognised iwi. This can be done through a tikanga-based framework (Section 3.1.1). Many regions in New Zealand, such as Southland, Otago and Waikato, are already collaborating with kaitiaki groups that represent the iwi in their rohe. These groups come up with values and aspirations to present to the Council when they are developing policies and making decisions. While these collaborative processes can be highly beneficial in the long term, they are expensive and lengthy.

In order to develop a freshwater monitoring plan that incorporates mātauranga Māori, Council need to identify how Māori in the Taranaki region determine the quality of a waterway and the indicators that assess this. This can be done through engagement with individual iwi. Monitoring tools already developed by kaitiaki groups and resource managers have used mātauranga Māori alongside western science to reflect the values of the iwi/hapū of their region. These tools present common indicators between them (Table 10) and can form the basis of discussions with iwi in Taranaki when developing a monitoring plan incorporating mātauranga Māori. Presenting a foundation of options for discussion would be efficient for all involved.

To give effect to all mātauranga Māori related objectives and policies in the NPS-FM, and from the information in this report, including what other councils are doing to incorporate mātauranga Māori and the monitoring frameworks and tools that can do this, the following recommendations are made for consideration in the development of a mātauranga Māori monitoring programme. That the Taranaki Regional Council:

1. Takes into account mātauranga Māori related objectives in the NPS-FM when reviewing the Regional Fresh Water Plan, and works with iwi authorities on developing a monitoring plan that reflects Māori values and uses western science provisions.
2. Continues training and collaborating concerning SHMAK, to improve tangata whenua understanding of scientific knowledge, Council understanding of mātauranga Māori. .

3. Uses the findings of this report, particularly the common indicators found across the tools, as a baseline for discussion with iwi when developing a monitoring tool that incorporates mātauranga Māori.

5 Glossary

Atua - god.

Awa - river

Hui - meeting, gathering.

Ika - fish.

Kaitiaki - guardian, caregiver.

Kaitiakitanga - guardianship.

Kaumātua - elderly.

Kete - bag.

Ki uta ki tai - from the mountains to the sea.

Koura - freshwater crayfish.

Kotahitanga - unity, togetherness.

Mahinga kai - food gathering place, wild food that is harvested.

Mana - courage, spiritual power, authority.

Mana whenua - territorial rights, power from the land.

Manaaki - to support, take care of, give hospitality to.

Manaakitanga - hospitality, kindness, support.

Manuhiri - guests.

Mauri - life force, essential quality and vitality of a being or entity, life supporting capacity of an object (both spiritually and physically).

Moko - grandchildren, great - grandchildren.

Ora - to be well, healthy.

Piharau - lamprey.

Rohe - region, territory, boundary.

Roopu - group, committee, organisation.

Takiwā - area, region.

Tangata whenua - local people, people of the land.

Tangihanga - funeral, rituals for the dead.

Taonga - treasure, valuable item.

Taura - rope, string.

Te Ao Maori - the Maori worldview.

Tikanga - protocol, correct procedure.

Tino rangatiratanga - self - determination, sovereignty.

Tuku iho - inherited, handed down.

Tuna - eel.

Wāhi taonga - treasured sites (e.g. marae, kainga).

Wāhi tapu - sacred place, sacred site (e.g. urupa).

Wai - water.

Waiata - song.

Wairua - spirit, soul.

Whaikorero - formal speech.

Whaitua - region, area.

Whakapapa - genealogy, ancestry, lineage.

Whanau - family.

Whānaungatanga - relationship, sense of family connection.

6 References

- Awatere, S. and Harmsworth, G. 2014. Ngā Aroturukitanga tika mo ngā Kaitiaki: summary review of mātauranga Māori frameworks, approaches and culturally appropriate monitoring tools for management of mahinga kai. Landcare Research contract report LC1774. Landcare Research, Hamilton, New Zealand. 45p.
- Awatere, S., Robb, M., Taura, Y., Harmsworth, G., Te Maru, J., and Watene-Rawiri, E. 2017. Wai Ora Wai Maori- a kaupapa Maori assessment tool. Landcare research policy brief No. 19 (ISSN: 2357-1713). 7p.
- Barlow, C. 1993. Tikanga Whakaaro: Key Concepts in Māori Culture. Auckland, NZ: Oxford University Press.
- Durette, M., Nesus, C., Nesus G., & Barcham M. 2009. Maori perspectives on water allocation. Prepared for the Ministry for the Environment.
- Environs Holdings Ltd, Te Uri o Hau Settlement Trust. 2011. Assessing the mauri of the Kaipara. Prepared for Manaaki Whenua Landcare Research, Contract No. C09X1003.
- Harmsworth, G. 2005. Good practice guidelines for working with tangata whenua and Maori organisations: consolidating our learning. Landcare research report LC0405/091. Prepared for: Integrated catchment Management Programme, Motueka.
- Harmsworth, G.R. and Awatere, S. 2013. Indigenous Māori knowledge and perspectives on ecosystems. Ecosystem Services in New Zealand. Pg 275-286.
- Harmsworth, G., Awatere, S. and Pauling, C. 2013. Using mātauranga Māori to inform freshwater management. Landcare research policy Brief No.7 (ISSN: 2357-1713). Freshwater. 5p.
- Harmsworth, G., Awatere, S., and Robb, M. 2015. Maori values and perspectives to inform collaborative processes and planning for freshwater management. Landcare Research Policy Brief No.14 (ISSN:2357-1713). Maori and Freshwater Planning. 6p.
- Harmsworth, G., S. Awatere, and M. Robb. 2016. Indigenous Māori values and perspectives to inform freshwater management in Aotearoa-New Zealand. *Ecology and Society*. 21(4):9.
- Hutchings, J., Smith, J., Roskrige, N., Severne, C., Mika, J., and Panoho, J. 2017. Enhancing Māori agribusiness through kaitiakitanga tools. For the Our Land and Water, National Science Challenge.
- Jefferies, R. and Kennedy, N. 2009. Maori outcome evaluation: a kaupapa Māori, outcomes and indicators, framework and methodology. International Global Change Institute, University of Waikato, Hamilton, New Zealand.
- Jefferies, R. and Kennedy, N. 2009. Nga Mahi: A kaupapa Maori outcomes and indicators kete. PUCM Maori report 2. The international global change institute (IGCI). The University of Waikato, Hamilton, NZ.
- Ktrejcek S. Riparian management in Taranaki a success for native biodiversity. Diploma thesis for Carl von Ossietzky University, Oldesburg. Marsden, M. 1988. The natural world and natural

- resources. Māori value systems and perspectives. Resource Management Law Reform Working paper 29. Part A. Wellington, Ministry for the Environment
- Ministry for the Environment. 2017. *National Policy Statement for Freshwater Management Implementation Review: National Themes Report*. Wellington: Ministry for the Environment
- Ngā Kaitiāhono. 2012. *Conversations on Mātauranga Māori*. Wellington, New Zealand Qualifications Authority.
- Nelson, K. and Tipa, G. 2012. *Cultural indicators, monitoring frameworks and assessment tools*. Tipa and Associates.
- NIWA. 2017. *Understanding taonga freshwater fish populations in Aotearoa-New Zealand*. Project TOK17301 undertaken for Te Wai Māori Trust.
- Orchard, S., Lang, M., Falwasser, T., Rupene, m., Te Karu, T., Tirikatene-Nash, N. and Willians, C. 2012. *Cultural Health Assessment of the Ruataniwha/Cam River and its Catchment*. Mahaanui Kurataiao Ltd Report.
- Pauling, C. and Arnold, J. 2009. *Cultural Health of the lake In: Te Waihora/Lake Ellesmere: State of the Lake and future management*. Hughey, K. and Taylor, K. (eds). EOS Ecology, Christchurch. 150p.
- Pauling, C., Lenihan, T., Rupene, M., Tirikatene-Nash, N., and Couch, R. 2007. *Cultural health Assessment of the Avon-Heathcote Estuary and its catchment*. Te Runanga o Ngai Tahu Report.
- Rehu, M. and Morgan, K. 2012. *Scoping study of the impacts of fracking on indigenous reservations in Alberta using the mauri model decision making framework*. Ngā Pae o Te Maramatanga. 12-IN-07.
- Robb, M., Harmsworth, G., and Awatere, S. 2015. *Maori values and perspectives to inform collaborative processes and planning for freshwater management*. Landcare Research contract report LC21119. Prepared for Ministry of Business Innovation and Employment and VMO Regional council forum. 66p
- Scheele, S., Carswell, F. Harmsworth, G., Lyver, P., Awatere, S., Robb, M., Taura, Y. and Wilson, S. 2016. *Reporting environmental impacts on te ao Māori: A strategic scoping document*. Prepared for Ministry for the Environment.
- Tipa, G. and Teirney, L. 2006. *A cultural health index for streams and waterways: a tool for nationwide use*. Report prepared for the Ministry for the Environment.
- Williams, E., Crow, S., Murchie, A., Tipa, G., Egan, E., Kitson, J., Clearwater, S., Fenwick, M. 2017. *Understanding Taonga Freshwater Fish Populations in Aotearoa- New Zealand*. National Institute of Water and Atmospheric Research Ltd client report No. 2017326HN. Prepared for Te Wai Māori Trust.

Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy and Planning Committee**

**Subject: Department of Conservation review of
the effect of the NZ Coastal Policy
Statement**

Approved by: A D McLay, Director – Resource Management
BG Chamberlain, Chief Executive

Document: 2017933

Purpose

The purpose of this memorandum is to brief Members on the key outcomes of the Department of Conservation's review of the effect of the *New Zealand Coastal Policy Statement 2010* (NZCPS) on regional policy statements, plans, and resource consents, and other decision making.

The full review report *Review of the effect of the NZCPS 2010 on RMA decision-making* is appended.

Executive summary

The Department of Conservation (DOC) has recently completed its review of the effect of the *New Zealand Coastal Policy Statement 2010* (NZCPS) on regional policy statements, plans, and resource consents, and other decision making. The full review report is appended.

As part of the review, DOC forwarded a questionnaire to local authorities for completion. Council officers responded to the questionnaire in October 2016 as reported to this committee at its November 2016 meeting.

Key outcomes of the review are that overall the direction for strategic planning and provision for use, development and protection in the NZCPS is broadly being given effect to but that significant challenges remain.

Implementation of the NZCPS, through policy statements and plans, is well advanced in some regions and districts, and less advanced elsewhere. Implementation through resource consent decision has been quicker.

Significant challenges with implementation of the NZCPS, as identified in the report, related to a lack of consistent assessment methodologies and DOC guidance, the implications of case law, in particular the Supreme Court's 2014 decision in *Environmental Defence Society v New*

Zealand King Salmon, the lack of integration between freshwater and coastal water management and standards, and debate over the precise identification of surf breaks of national importance.

The report makes a number of recommendations including the completion of DOC guidance and investigating ways to support coordinated implementation of the NZCPS with other national policy statements.

Recommendation

That the Taranaki Regional Council:

1. receives this memorandum and notes the key outcomes of the review of the effect of the New Zealand Coastal Policy Statement.

Background

The current *New Zealand Coastal Policy Statement* (NZCPS) became operative in 2010 replacing the earlier 1994 version. The NZCPS is the only mandatory national policy statement and was the first national policy statement prepared. *The Resource Management Act 1991* (RMA) requires that regional policy statements and plans "...give effect to the NZCPS".

Policy 28 of the NZCPS requires that the effect of the NZCPS on "...regional policy statements, plans, and resource consents, and other decision making" be assessed within six years of its gazettal. This is an effectiveness review rather than a full review of the NZCPS. Accordingly, in late 2016, the Department of Conservation (DOC), the ministry responsible for the NZCPS, commenced its review.

As part of the review, DOC forwarded a questionnaire to local authorities for completion. Council officers responded to the questionnaire in October 2016 as reported to this committee at the November 2016 meeting. DOC's goal for the survey was to understand how far through the planning and implementation process each council is in giving effect to the NZCPS. They also wish to understand the level of resources, competing priorities and issues that have been encountered in doing so and seek councils' views on the effectiveness of the NZCPS in addressing key coastal issues in our region. Feedback from councils informed a report to the Minister of Conservation, with the final report being published in late 2017.

Survey response

With regards to the Council's response to DOC's questionnaire the following key points were made:

- Officers' reported that to date Council has given effect to the NZCPS through its *Regional Policy Statement for Taranaki*, its *Regional Coastal Plan for Taranaki*, and through its coastal permit authorisation processes;
- Officers noted that Council has also commenced targeted consultation on the *draft Coastal Plan for Taranaki*, which updates the current Plan and brings all of the requirements of the NZCPS together within one document;
- In relation to difficulties in implementing the NZCPS, officers highlighted the lack of timely advice. Of note, NZCPS guidance material is either still incomplete or does not reflect recent case law, i.e. the Supreme Court's decision on the King Salmon case. This

decision determined that the use of the term 'avoid' in the NZCPS policies means that adverse effects must be strictly avoided (i.e. not allowed) and that regulators must provide environmental protection rather than simply considering protection alongside use and development as per Part 2 of the RMA;

- Officers noted better integration and alignment with other national policy statements is required, as there are often inconsistencies. Officers' also commented that a 'one size fits all' approach of national policy statements is not appropriate in all cases; and
- To date Council experiences with processing resource consents has not highlighted any problems with applying the NZCPS policies. However, potential consenting issues may occur in the future, due to the high thresholds of 'avoid' in NZCPS policies, particularly in relation to existing activities or structures that relate to nationally significant activities or infrastructure.

Key outcomes of the DOC review

The report *Review of the effect of the NZCPS 2010 on RMA decision-making* summarises the findings of the effectiveness review of the NZCPS. In the time available, DOC did not review the contents of all regional policy statements (RPSs) and plans to determine their effectiveness in giving effect to the NZCPS. Instead they chose to undertake direct engagement with councils and stakeholders by way of a survey and workshops.

Overall, the report found that the direction for strategic planning and provision for use, development and protection in the NZCPS is broadly being given effect to by regional councils but that significant challenges remain.

The report further notes that implementation of the NZCPS, through policy statements and plans, is well advanced in some regions and districts, and less advanced elsewhere. Resourcing issues were identified as a factor impeding timely processes by councils. Notwithstanding that, implementation through resource consent decision has been quicker. The report highlights Government's expectation that the NZCPS would be implemented over a number of years.

Of note, this Council has recently publically notified its *Proposed Coastal Plan for Taranaki* (Proposed Coastal Plan) on 24 February 2018. Submissions are open until 27 April 2018. This plan gives full effect to the NZCPS. Council has previously given effect to the NZCPS through its *Regional Policy Statement for Taranaki*, its *Regional Coastal Plan for Taranaki*, and through its coastal permit authorisation processes.

In relation to challenges with implementation of the NZCPS, the report presented the following key findings:

- **Methodologies** - lack of consistent methodologies is problematic, e.g. identification of outstanding landscapes and coastal hazards, and DOC guidance to assist councils needs to be completed. As members are aware, as part of the Coastal Plan review, this Council had to develop its own robust methodology to identify outstanding landscapes in the Proposed Coastal Plan in the absence of national guidance.
- **King Salmon case law** - the Supreme Court's 2014 decision on *Environmental Defence Society v New Zealand King Salmon* has significant implications for resource management planning and decision-making. This case clarified that directive policies in the NZCPS were appropriate and mean what they say, 'avoid' means 'avoid'. However, there are

still polarised views on implementation. Of note, to date this Council has not encountered any issues in processing resource consents and taking into account current case law. However, potential consenting issues may occur in the future, due to the high thresholds of 'avoid' in NZCPS policies, particularly in relation to existing activities or structures that relate to nationally important activities or infrastructure.

- **Integration** – The lack of integration between freshwater and coastal water management and standards was highlighted by a number of councils and noted in the report.
- **Surf breaks** – Some sectors continue to question why surf breaks are identified specifically in the NZCPS however, the review found that the precise identification of surf breaks of national importance has reduced disputes around their identification, raised their profile as a national resource and resulted in councils investing in facilities to support their use. Members will be aware that through its Proposed Coastal Plan, Council has gone beyond the requirements of the NZCPS in relation to protection of surf breaks and has included 140 surf breaks for protection.

Future DOC work

Going forward, the report recommends that future assessment should focus on strategic and integrated management rather than a particular sector and better use of non-statutory processes as a catalyst for further work involving iwi and stakeholders.

Some participants in the review considered that the directive policies in the NZCPS relating to outstanding areas and biodiversity should be reviewed following King Salmon. However, the report believes that any further assessment of the NZCPS in relation to directive policies should include a detailed audit of on ground implementation work. It was noted that a stakeholder process could be used to consider sharply contrasting views and explore the potential for consensus.

In relation to responding to uneven implementation of the NZCPS, the report recommends:

- A more concentrated focus of resources and support in areas where there are particular challenges could be considered.
- more direction through region-wide identification, mapping and assessments (rather than district by district), particularly in relation to determining the extent and characteristics of the coastal environment.
- DOC guidance should be completed and ways to support coordinated implementation of the NZCPS with other national policy statements should be considered.
- Prioritising work on developing consistent assessment methodologies would be valuable particularly for identifying outstanding natural character, natural landscapes and natural features. Consistent methodologies would also greatly assist with mapping and identification of the coastal environment, and coastal hazard risk assessments.
- Develop an approach to respond to the remaining provisions of Policy 28 for the monitoring and review of the NZCPS.

Council officers are supportive of all of these recommendations except region-wide identification, mapping and assessments. Much of this work is only necessary to fulfil district council functions and therefore more appropriately lies with district councils.

The full review document *Review of the effect of the NZCPS 2010 on RMA decision-making* is attached (see appendix).

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 2018520: Review of the effect of the NZCPS 2010 on RMA decision-making Part 1

Further reading: [Review of the effect of the NZCPS 2010 on RMA decision-making Part 2](#)

Prepared for the Minister of Conservation
by the Department of Conservation

Review of the effect of the NZCPS 2010 on RMA decision-making

Overview and key findings



Department of
Conservation
Te Papa Atawhai

JUNE 2017

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Review of the effect of the NZCPS 2010 on RMA decision-making.

Part 1 – Overview and key findings.

Prepared for the Minister of Conservation by the Department of Conservation

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Contents

Executive summary	4
<i>Key findings of the Review</i>	5
<i>Implementation progress through policies, plans and consents</i>	6
<i>Strategic and integrated planning processes are challenging but underpin effective implementation</i>	7
<i>NZCPS 2010 provisions for use, development and protection, and the implications of the King Salmon decision</i>	8
<i>Need for consistent methodologies</i>	9
<i>Coastal hazard management is challenging at the local level and will benefit from clear national guidance</i>	10
<i>Water quality</i>	10
<i>Other provisions and issues</i>	11
<i>Focus of future work</i>	11
Introduction	13
Scope and methodology of the Review	15
Background	17
Replacing the NZCPS 1994	17
Environmental Defence Society v New Zealand King Salmon	17
Implementation progress	19
Regional policy statements and plans	19
Resource consents	21
Court decisions	22
Implementation support and guidance	23
Tangata whenua and the NZCPS	25
Key issues identified in the Review	27
Implementation and resourcing issues	28
Relationships with other national instruments	29
Strategic planning, and provisions for use, development and protection	30
<i>Policies 4 (Integration) and 7 (Strategic Planning)</i>	30
<i>Policies 13 (Preservation of natural character) and 15 (Natural features and natural landscapes)</i>	31
<i>Policy 11 (Indigenous biological diversity)</i>	36
<i>Policies 6 (Activities in the coastal environment), 8 (Aquaculture) and 9 (Ports) - the use and development policies</i>	39
<i>Policy 1 (Extent and characteristics of the coastal environment)</i>	40
Water quality policies	41
Coastal hazard policies	43
Other NZCPS provisions	45

<i>Policy 12 (Harmful aquatic organisms)</i>	45
<i>Policy 14 (Restoration of natural character)</i>	46
<i>Policy 16 (Surf breaks of national significance)</i>	47
<i>Policy 17 (Historic heritage identification and protection)</i>	48
<i>Policies 18 (Public open space), 19 (Walking access) and 20 (Vehicle access)</i>	48
Focus of future work	50

Part 1 – Overview and key findings

Executive summary

1. The New Zealand Coastal Policy Statement (NZCPS) is prepared by the Minister of Conservation under the Resource Management Act 1991 (RMA). Its purpose is to state policies in order to achieve the RMA's purpose in relation to the coastal environment of New Zealand¹ and it is the only mandatory national direction instrument under the RMA. The current NZCPS came into effect on 3 December 2010.
2. Policy 28(1)(c) of the NZCPS 2010 requires the Minister of Conservation to assess the effect of the NZCPS on regional policy statements, plans, resource consents, and other decision-making within 6 years of it coming into effect. Accordingly, the Department of Conservation (DOC) has undertaken a review of the effect of the NZCPS on RMA decision-making (the Review).
3. The NZCPS 2010 replaces the NZCPS 1994 and is intended to address 'significant deficiencies in coastal resource management'.² It places a greater emphasis on strategic and integrated planning, anticipating that its implementation will result in key issues being resolved through planning and plan making rather than consenting processes. To support this approach, it requires policy statements and plans to identify key characteristics and values (for use, development and protection) in the coastal environment, and directs policy outcomes for these. The most restrictive policy applies to areas with the highest values, with greater flexibility provided for areas with lower values. Some particular uses are identified and the characteristics of activities in the coastal marine area are highlighted. In recommending the NZCPS 2010 for gazettal, the Minister of Conservation intended that it would give 'appropriate relative weight and attention to protecting natural values and allowing for economic use and development'. Her recommendation was also based on the expectation that the new NZCPS would 'support progressive improvement' with gradual implementation.³

¹ RMA 1991, s 56.

² BOI Report and Recommendations to the Minister of Conservation (2009).

³ Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010, para 3.

Key findings of the Review

A. Strategic and integrated planning underpins effective implementation

- The NZCPS 2010 directs ‘up-front’ strategic planning for subdivision, use and development, and other activities.
- Managing cumulative effects is particularly challenging at the resource consent stage in the absence of a robust, wider strategic planning framework in policy statements and plans.
- There has been good progress where councils have adopted a strategic and integrated approach to coastal planning (e.g. Bay of Plenty, Auckland and Northland), but challenges remain and not all councils are prioritising strategic planning (due to a lack of technical information, high costs, silo approaches, etc.).
- There is a concentration of complex implementation issues in some places, e.g. Marlborough and the Hauraki Gulf.

B. Implementation is well advanced in some places but less advanced elsewhere

- Implementation through policy statements and plans is well advanced in some regions and districts, and less advanced elsewhere.
- When approved, it was acknowledged that the issues were complex and implementation of the NZCPS 2010 would occur gradually over a period of years.
- Resourcing issues have been identified as a factor impeding timely processes by councils.

C. Consistent methodologies and further implementation guidance are still required

- The lack of consistent methodologies is problematic for NZCPS 2010 implementation, e.g. identification of outstanding landscapes and coastal hazards.
- Guidance to assist councils with implementation of the NZCPS 2010 needs to be completed.

D. Strongly polarised views on the implications of the *King Salmon* decision on NZCPS directive policies

- There are clear interrelationships between the directive policies and the balance of the NZCPS 2010, making it problematic to consider one without the others.
- There is a clear understanding that the directive policies in the NZCPS are aimed at protecting ‘the best of the best’, but views are strongly polarised on the implications of the *King Salmon* decision on these policies.
- In particular views are polarised on the level of protection that is appropriate for indigenous biodiversity and outstanding natural character, natural landscapes and natural features and whether some activities are so important (or present such significant benefits) that adverse effects should not need to be avoided. If adverse effects are not required to be avoided there are also polarised views on matters such as who should make decisions about the type and effects to be allowed, and which RMA process should be used for such decisions (national direction, policy statements and plans, or resource consents).
- These are important issues that should be widely discussed.

Part 1 – Overview and key findings

Implementation progress through policies, plans and consents

4. The Review found that implementation through policy statements and plans has substantially progressed in some regions and districts, and is ongoing elsewhere.⁴ Implementation through individual plan change and resource consent decisions has been quicker where these processes have occurred.
5. However, progress has been uneven. In general, implementation is more advanced in regions than in districts and regional policy statements are more advanced than regional coastal plans, reflecting regional councils' interests in advancing second-generation regional policy documents ahead of other documents and their responsibility for the coastal marine area. Some of New Zealand's smallest councils by ratepayer base have complex coastlines and high-profile resource management issues.
6. When approved, it was acknowledged that implementation of the NZCPS 2010 would take time. Some councils are not as far through the RMA's Schedule 1 process but have undertaken, or are undertaking, the background work and consultation that is required before a proposed policy statement or plan can be publicly notified. Councils reported that their decisions on coastal planning priorities were being led in part by the NZCPS 2010.
7. The available data indicate that applications for coastal permits are approved at a similar rate to other consent categories and are concentrated in three regions (Marlborough, Waikato and Northland).⁵ This geographical spread is also reflected in the number of decisions (Board of Inquiry and Court) that have substantively considered the NZCPS 2010.
8. DOC has led the provision of implementation support and guidance on the understanding and interpretation of the NZCPS provisions, but the guidance is not complete. Feedback through the Review indicated that this guidance should be completed as a priority. DOC continues to participate in pre-statutory and statutory policy statement and plan making processes.
9. The Review identified a wide range of resourcing issues that are impacting on council implementation of the NZCPS 2010, including competing priorities directed by other national policy statements (NPSs). The information and planning requirements in the NZCPS 2010 are also resource and time intensive for councils.

⁴ Information on progress is summarised in Tables 2 and 3, and detailed in Parts 2D and E.

⁵ Ministry for the Environment (2016). *National Monitoring System for 2014/15*. Ministry for the Environment, Wellington.

Strategic and integrated planning processes are challenging but underpin effective implementation

10. The Review found that councils have made substantial progress in increasing the strategic content in regional policy statements and plans, including up-front identification of high-value areas and uses to give effect to the NZCPS 2010, particularly in relation to Policies 11 (Indigenous biological diversity), 13 (Preservation of natural character) and 15 (Natural features and natural landscapes), but also the provisions that guide planning, use and development, such as Policies 7 (Strategic planning – providing for future residential, rural residential, settlement, and urban development), 8 (Aquaculture) and 9 (Ports).
11. The Review also found that councils are increasingly considering strategic and spatial planning processes in the coastal environment. Such processes can take place outside RMA processes with their outcomes included in policy statements, and regional and district plans.
12. However, some participants in the Review reported that councils are not always making strategic planning a priority, despite it being critical for effectively providing for use and development. This is due to a number of challenges, including a lack of technical information to support planning and the expense and time involved in obtaining that information. Increasing interest in undertaking activities in offshore and remote marine locations has compounded technical and resourcing challenges.
13. Strategic planning in coastal environments has also grappled with the inherent tension between certainty (for resource users in particular but also for people who are concerned about the enduring protection of high values) and flexibility for new opportunities and priorities. Some pressures from new and emerging activities anticipated in 2010 have not eventuated while others continue to be present.
14. The Review (through the analysis of plan progress, consents and decisions, and stakeholder discussions) identified a concentration of complex implementation issues in some places, e.g. Marlborough and the Hauraki Gulf. A number of participants focused on the spatial planning project for the Hauraki Gulf as an example of an effective, well-informed, participatory planning process. Some participants considered that the obvious issues and strongly polarised views in the Marlborough Sounds could be advanced by a focused and participative strategic planning exercise.
15. Overall, the Review found that the direction for strategic planning and provision for use, development and protection in the NZCPS 2010 is broadly being given effect to but that significant challenges remain.
16. Tangata whenua have a key relationship with the coast and a strong desire to be involved in decision-making in the coastal environment, including any changes to key policy documents such as the NZCPS 2010. Tangata whenua see the NZCPS 2010 as supporting their strong interests in decision-making on coastal environment matters, but strong relationships between councils and iwi are critical

Part 1 – Overview and key findings

to effective implementation. There can be financial constraints on iwi involvement in RMA and NZCPS decision-making, particularly for ‘non settled’ iwi. Some councils provide financial support for iwi to participate in RMA decision-making processes.

NZCPS 2010 provisions for use, development and protection, and the implications of the King Salmon decision

17. A review of the effectiveness of the NZCPS 2010 quickly turns to the implications of the Supreme Court’s decision on *King Salmon* both for the NZCPS itself and RMA decision-making in general.
18. The Supreme Court’s 2014 decision in *Environmental Defence Society v New Zealand King Salmon*⁶ (*King Salmon*) has had significant implications for resource management planning and decision-making, and for implementation of the NZCPS 2010. It featured prominently in the Review.
19. The Review heard wide-ranging and deeply held views on the implications of *King Salmon*, particularly in relation to the implementation of Policies 13 and 15 (relating to natural character, and outstanding natural features and natural landscapes) but also in relation to policies about water quality and biodiversity.
20. An industry view expressed most clearly by the aquaculture industry, is that the NZCPS 2010 lacks balance following *King Salmon*. The concern is that the directive policies (particularly on outstanding natural character, natural features and natural landscapes) give no, or an unduly limited, ability to approve any activity with adverse effects on outstanding areas, regardless of the importance or benefits of that activity. Industry also pointed to ongoing court action as demonstrating uncertainty as a result of the *King Salmon* decision.
21. In sharp contrast, environmental groups expressed the view that the directive policies do not preclude appropriate development in appropriate locations at an appropriate scale, and strongly supported retention of the current wording. Reflecting on their implementation experience, some councils also expressed this view.
22. The direction of the NZCPS 2010 on the protection of outstanding areas was identified by environmental groups as being consistent with the RMA’s purpose and principles. These groups expressed concern that some aspects of NZCPS 2010 implementation post *King Salmon* appear to focus on ‘getting around’ the decision. Similarly, the tangata whenua who were spoken to expressed strong support for directive policies on raw sewage discharge.
23. Environmental groups also considered it premature to change the NZCPS, on the grounds that time (and guidance) was needed to enable regional policy statements

⁶ *Environmental Defence Society Incorporated v The New Zealand King Salmon Company Limited* [2014] NZSC 38.

and plans to 'give effect' to the NZCPS 2010 by identifying areas and particular effects that needed to be avoided rather than simply avoiding all adverse effects.

24. There are polarised views on whether some activities are so important (or present such significant benefits) that their adverse effects should be able to be remedied or mitigated rather than simply avoided, and who should be responsible for such decisions if a different approach is preferred over current NZCPS 2010 policy. There are also polarised views on whether 'balancing' should occur for each decision that is made (on policy statements, plan contents and resource consent applications) or whether that direction should be provided within the NZCPS itself.
25. Progress in implementing the NZCPS 2010 through policy statements and plans has continued since *King Salmon*, particularly in Northland, Auckland, the Bay of Plenty and Marlborough. Some questions that have arisen consequentially have been resolved through court decisions while others, particularly in relation to the implications of *King Salmon* for resource consent decision-making, remain in contention.
26. The Review found that any further assessment of NZCPS 2010 policy in relation to the directive policies (particularly Policies 13 and 15) should include a detailed audit of the work completed and underway to implement these policies on the ground. Some of the same issues arose for Policy 11.
27. The Review highlighted the wide interest in these policies, and the clear interrelationships between the directive policies and the balance of the NZCPS 2010, particularly in relation to integrated management and strategic planning for use and development. Therefore, any further assessment should address integrated management rather than focusing on a particular sector.

Need for consistent methodologies

28. The intended focus on planning (rather than consents) requires the identification of important values in policy statements and plans, which depends on 'robust methodologies and consultation processes'.⁷ The Review found that while there has been significant effort at a regional level and some effort nationally, the absence of widely accepted consistent methodologies (particularly for identifying outstanding areas and assessing the effects on them) is of pressing concern to a wide range of stakeholders. This gap is having significant resourcing implications for councils and is increasing the costs of resource management processes for other participants.

⁷ Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010, para 24.

Part 1 – Overview and key findings

Coastal hazard management is challenging at the local level and will benefit from clear national guidance

29. Implementation of the NZCPS 2010 coastal hazard policies has been challenging and very controversial for some communities. Particular challenges include data availability, community, iwi and stakeholder values, and financial constraints. The NZCPS 2010 policy on coastal hazards represents a significant change in direction from the NZCPS 1994, and councils, while supportive of the coastal hazard policies, expressed considerable concern at the lack of central government guidance to date.⁸ Stronger alignment between the NZCPS/RMA and the Building Act 2004 would also be helpful (i.e. consistency across risk timeframes, extreme events and methodologies for identifying climate change effects).
30. The Review found that support for planning at the regional and national levels is likely to achieve better outcomes because coastal hazard management can be particularly contentious at the local level. However, the lack of an agreed methodology to identify, map and assess coastal hazard risks remains problematic, and national guidance is necessary.

Water quality

31. The Review heard that the water quality objective of ‘maintaining coastal water quality, and enhancing it where it has deteriorated’⁹ is generally appropriate. However, management across the land/coast boundary continues to be an issue. Particular issues of ongoing concern that were raised in the Review are sedimentation and the land-sea interface, including the downstream impact of land use inland of the coastal environment, and sewage/stormwater management and increasing urban pressures in general.
32. A lack of integration between freshwater and coastal water management and standards was noted. Management of the effects of land use on coastal wetlands and estuaries was identified as an issue that falls between the NPS – Freshwater Management 2014 and the NZCPS 2010. Implementation of the NZCPS water quality provisions is hampered in some places by a lack of technical information (particularly with regard to baseline water quality) and the cost of obtaining such information.
33. The tangata whenua spoken to support the strengthened water quality policy direction in the NZCPS 2010 in relation to the discharge of raw sewage. However, tension between tangata whenua values and council and community views on the practicality and cost of separating stormwater and sewage remains.

⁸ The Ministry for the Environment and DOC have developed updated and complementary guidance on climate change and coastal hazards, due for release in mid-2017.

⁹ Objective 1, NZCPS 2010.

Other provisions and issues

34. With regard to some other NZCPS provisions:
- The NZCPS 2010 includes new policy to guide the identification of the inland extent of the coastal environment (Policy 1). Although not directly required, the Review found that many councils have undertaken coastal environment mapping and that this mapping has significantly assisted implementation where it has been undertaken. The Review also found particular advantages in coordinating this work at the regional rather than district level.
 - The inclusion of identified nationally significant surf breaks is new to the NZCPS 2010. Some sectors continue to question why surf breaks are identified specifically in the NZCPS. However, the Review found that the precise identification of surf breaks of national importance has reduced disputes around their identification, raised their profile as a national resource and resulted in councils investing in facilities to support their use.
 - The Board of Inquiry noted that public access to the coast is highly valued by New Zealanders, and Policies 18–20 support more strategic planning for coastal open spaces, including public access. The Review found that these policies support councils that choose to address the often contentious issue of public access to the coast through their RMA documents and decision-making.
 - No significant issues were identified in relation to the implementation of Policies 17 (Historic heritage identification and protection) and 12 (Harmful aquatic organisms).

Focus of future work*Supporting strategic and integrated planning*

35. The clear interrelationships between the directive policies and the balance of the NZCPS 2010 require careful consideration, particularly in relation to integrated management and strategic planning for use and development. Therefore, any further assessment should focus on strategic and integrated management rather than a particular sector.
36. Better use should be made of non-statutory processes as a catalyst for further work involving iwi and stakeholders, including agencies with different statutory responsibilities, for example by building on strategic spatial planning approaches such as those used in the Hauraki Gulf process.

Directive policies

37. Some participants in the Review considered that the directive policies in the NZCPS 2010 relating to outstanding areas and biodiversity should be reviewed following *King Salmon*. The Review found that any further assessment of the NZCPS 2010 in relation to the directive policies (particularly Policies 13 and 15) should include a detailed audit of on the ground implementation work that has

Part 1 – Overview and key findings

been conducted to date.

38. In relation to Policy 11, it is particularly important that filling information gaps and sharing information between agencies are prioritised.
39. There is wide interest in the directive policies. A stakeholder process could be used to consider sharply contrasting views on these policies, and to explore the potential for consensus.

Responding to uneven implementation

40. In relation to regional and district planning approaches, a more concentrated focus of resources and support in areas where there are particular challenges could be considered (e.g. in Marlborough).
41. The promotion of more direction through region-wide (rather than district by district) identification, mapping and assessment, particularly in relation to the extent and characteristics of the coastal environment, would be beneficial.

Work on implementation guidance and methodologies

42. DOC's guidance to support the NZCPS 2010 should be completed and opportunities to share implementation experiences should be increased. Ways to better support coordinated implementation of the NZCPS 2010 and other national policy statements should also be considered (particularly in relation to the NPS – Freshwater Management and the NPS on Urban Development Capacity).
43. Prioritising work on developing consistent assessment methodologies would be valuable, particularly methods for identifying outstanding natural character, natural landscapes and natural features. Consistent methodologies would also greatly assist with the mapping and identification of the coastal environment, and coastal hazard risk assessments.

Monitoring and reporting

44. An approach to respond to the remaining provisions of Policy 28 needs to be developed, including the gathering of on the ground information and improved monitoring and reporting. This work would also address reporting on the effectiveness of the NZCPS 2010 in achieving the purpose of the RMA, including:
 - developing a nationally consistent monitoring and reporting programme (Policy 28(a)); and
 - gathering information that will assist in providing a national perspective on coastal resource management trends, emerging issues and outcomes (Policy 28(b)).

Introduction

45. This report (Overview Report) summarises the findings of the effectiveness review for the New Zealand Coastal Policy Statement (NZCPS) 2010 (the Review). It is accompanied by *Review of the effect of the New Zealand Coastal Policy Statement 2010 on RMA decision-making: Part 2 – Background Information*.
46. The NZCPS is prepared under the Resource Management Act 1991 (RMA). Its purpose is to state policies in order to achieve the RMA's goals in relation to the coastal environment of New Zealand.¹⁰ It is the only mandatory national policy statement (NPS) under the RMA.
47. The existence of a policy statement that is specific to the coastal environment reflects the importance of the coast to New Zealanders and its particular management challenges, including a high concentration of nationally significant uses and values. Tangata whenua also have a deep relationship with the coast.
48. Multiple activities occur in the coastal environment, some of which have the potential to conflict. Important uses that operate in the marine environment include transport, fishing, tourism and aquaculture. Other activities covered by NZCPS policies include transport infrastructure, telecommunications, settlements for housing and papakainga, and access facilities such as wharves and moorings. The coastal marine area, which is part of the coastal environment, is public not private space.
49. The Minister of Conservation is responsible for preparing and recommending the NZCPS as part of the coastal management regime under the RMA. The Minister of Conservation's other responsibilities in relation to coastal management include approving regional coastal plans, and monitoring the effect and implementation of NZCPSs.
50. The current NZCPS came into effect on 3 December 2010, replacing the NZCPS 1994, and followed a Board of Inquiry process.¹¹ The NZCPS 2010 refocused some of the policy direction from the 1994 document to make it more directive around enabling appropriate use and development, while also protecting other identified natural values. It also included direction on some new issues, such as surf breaks and climate change. The NZCPS covers a wide range of issues over a large part of New Zealand. In recommending the new document for approval, the Minister of Conservation said:

In summary I would expect the new NZCPS to support progressive improvement rather than radical change in economic, social and environmental outcomes from coastal resource management. Change would occur gradually, over a period of years, as the statement is given effect in plans and considered where relevant in consent decisions. Outcomes would be influenced significantly by community aspirations expressed through plan processes, and by differences in the relative importance of particular issues between regions and districts. Given the wide range of economic activities in the coastal environment, costs and benefits would not be concentrated in particular sectors, although policy is

¹⁰ Resource Management Act 1991, s 56.

¹¹ A total of 539 submissions were received of which 175 were heard by the Board of Inquiry.

Part 1 – Overview and key findings

*clearly of particular relevance to activities focused on the coast such as aquaculture, ports and coastal residential property development.*¹²

51. Policy 28 of the NZCPS 2010 requires the Minister of Conservation to ‘assess the effect of the NZCPS on regional policy statements, plans and resource consents, and other decision making’ within 6 years of it coming into effect. Accordingly, the Department of Conservation (DOC) has undertaken this review.

¹² Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010, para 31.

Scope and methodology of the Review

52. Policy 28(1)(c) of the NZCPS 2010 requires the Minister of Conservation to assess the effect of the NZCPS on regional policy statements, plans, resource consents, and other decision-making within 6 years of it coming into effect. Accordingly, the Department of Conservation (DOC) has undertaken a review of the effect of the NZCPS on RMA decision-making. The Section 32 report¹³ that was prepared as the NZCPS 2010 was being finalised in 2010 has informed the Review.
53. The Review was completed between August 2016 and April 2017. The scope of the Review and the methodology used are described in detail in *Part 2 – Background information*¹⁴ and summarised in Figure 1 below, noting that:
- In the time available, it was not possible to review the contents of all regional policy statements (RPSs) and plans. Direct engagement with councils and the responses to the local government survey provided information on implementation progress.¹⁵
 - The Review did not include the collection of data or the establishment of a nationally consistent monitoring and reporting programme (both of which are anticipated by other parts of Policy 28). Decisions on how Policy 28 will be fully implemented, including on the ground results, are yet to be made. Some participants in the Review, including some attendees at the ten Sector Group Workshops, commented that an on the ground assessment was necessary to fully test the effectiveness of the NZCPS 2010 and suggested measures that could be monitored.¹⁶ However, this Review does recognise that both on the ground information and improved monitoring and reporting would be useful, and consequently identifies these areas as a priority for further work.
 - Some iwi were contacted as part of the case studies¹⁷ and invited to participate in the Review. Those who participated provided comment on the particular case study and their experiences with the RMA and the NZCPS 2010 in particular. In addition, the NZCPS 2010 was discussed directly with Te Rūnanga o Ngāi Tahu. Most interviewees were, or had been, the resource management representative of their respective iwi and/or hapu. The timeframe required that the Review gather representative information rather than consult with all stakeholders and iwi. This limitation is acknowledged and means that further and ongoing discussion with tangata whenua will be needed in the future.
54. A review of the implications for planning practice of the King Salmon decision was commissioned and is provided in Part 2 – Background information.¹⁸ Further information about the case is also provided.¹⁹

¹³ Part 2M: NZCPS 2010 – Summary of evaluation under section 32 of the RMA (October 2010).

¹⁴ Part 2A: Review methodology.

¹⁵ Part 2J: Local government survey and Part 2K: Councils surveyed.

¹⁶ Part 2C: Effectiveness review of the NZCPS – Sector Group Workshops.

¹⁷ Part 2G: Case studies.

¹⁸ Part 2B: Review of implications for planning practice of the Supreme Court *King Salmon* decision and its impact on the interpretation of the New Zealand coastal Policy Statement.

¹⁹ Part 2I: *Environmental Defence Society v New Zealand King Salmon* – Further information.

Part 1 – Overview and key findings

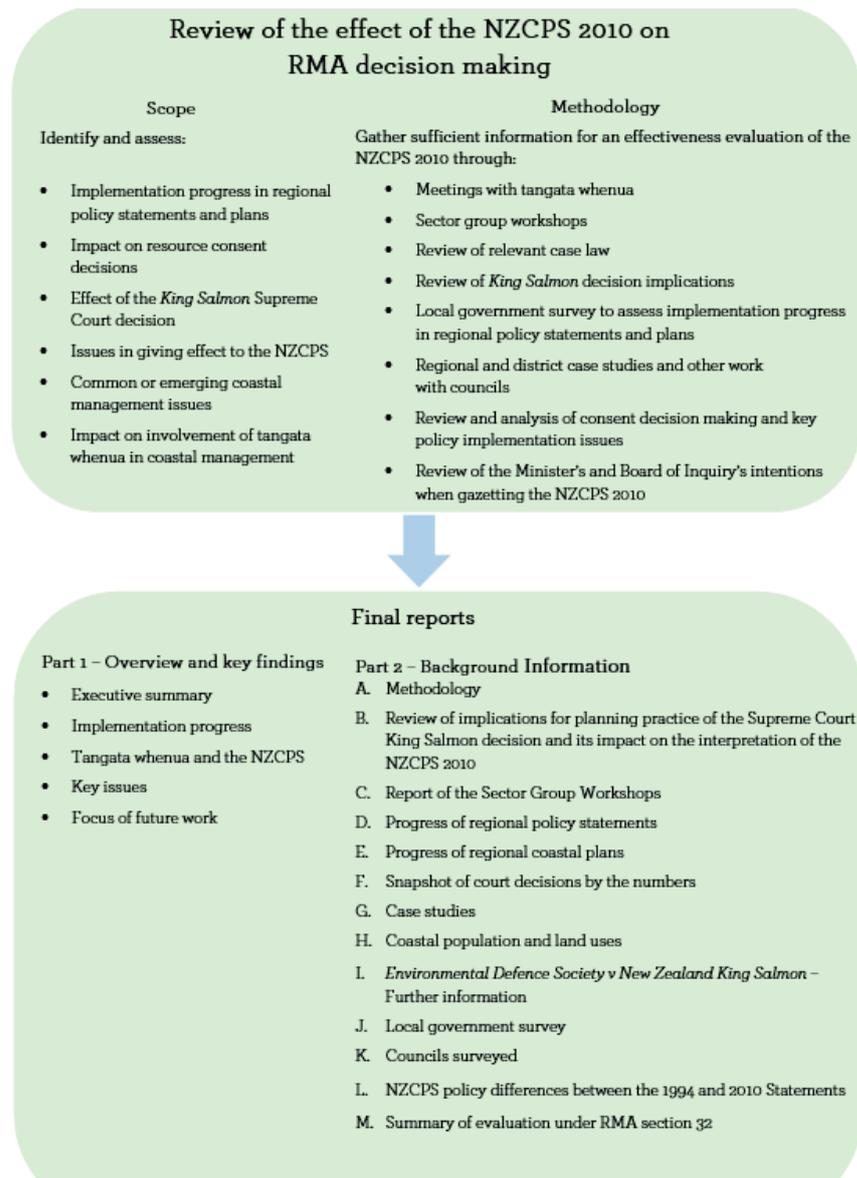


Figure 1: Scope and methodology of the effectiveness review of the NZCPS 2010

Background

Replacing the NZCPS 1994

55. In recommending a revised NZCPS for gazettal in 2010, the Minister of Conservation noted that the NZCPS 1994 had provided high-level policy guidance but did ‘not provide adequate direction for decision makers about proposed activities in the coastal environment’.²⁰ The Minister further noted:

There are significant deficiencies in coastal resource management, regarding integrated management across administrative boundaries; planning for subdivision and development; protection of open space and recreation values; maintenance of public access; maintenance of water quality; management of coastal hazard risks; and recognition of Māori values and interests. There is a general deficit in strategic and spatial planning, including for future infrastructure needs and use of renewable energy sources in the coastal environment.

56. The Minister accepted most of the Board’s recommendations but made some amendments to the Board’s proposed wording to ensure that the NZCPS did not ‘cross the line from effective policy direction to excessive prescription’ and to give ‘appropriate relative weight and attention to protecting natural values and allowing for economic use and development’.²¹ The Minister stated that she expected the NZCPS 2010 to provide greater certainty for resource users about where development may occur. The intention was for important values to be identified in plans rather than through the resource consent processes, which incur a greater cost to applicants.²²
57. The key changes from the NZCPS 1994 are shown in *Part 2 – Background information*²³.

Environmental Defence Society v New Zealand King Salmon

58. A review of the effect of the NZCPS 2010 on RMA decision-making quickly turns to the implications of the Supreme Court’s decision on *King Salmon* both for the NZCPS itself and RMA decision-making in general.
59. *King Salmon* was concerned with an application by New Zealand King Salmon Ltd for a change to the Marlborough Sounds Resource Management Plan to allow consent applications to establish a new salmon farm in western Port Gore in the outer Marlborough Sounds. The plan change for Port Gore was approved by a Board of Inquiry appointed by the Minister of Conservation. Although the Board found that the proposed farm would not give effect to Policies 13 (Preservation of

²⁰ Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010, para 19.

²¹ Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010, para 21.

²² Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010.

²³ Part 2L: NZCPS policy differences between the 1994 and 2010 Statements.

Part 1 – Overview and key findings

natural character) and 15 (Natural features and natural landscapes) of the NZCPS 2010, it approved the plan change, considering that it would give effect to the NZCPS 2010 as a whole and applying the overall broad judgment required under Part 2 of the RMA.

60. That decision was overturned by the Supreme Court, which held that:
- ‘Avoid’ in Policies 13 and 15 means ‘do not allow’
 - Policies 8 (Aquaculture), 13 and 15 are not inconsistent and do not pull in different directions when read properly
 - The meaning of appropriate and inappropriate in Policies 8, 13 and 15 depends on what the policy is directing
 - When determining whether a plan change gives effect to the NZCPS, it is only permissible to consider RMA Part 2 in limited circumstances.
61. *King Salmon* has now been referred to in numerous Board of Inquiry and court decisions, and is widely described as a ‘landmark’ decision. It has had significant implications for wider resource management practice and law, and implementation of the NZCPS 2010 in particular. *King Salmon* featured prominently in the Review.

Implementation progress

62. Progress on the following aspects of NZCPS 2010 implementation were considered in the Review:
- Regional policy statements and plans
 - Resource consents
 - Court decisions
 - Implementation support and guidance

Regional policy statements and plans

63. The RMA requires that regional policy statements and plans must ‘give effect to the NZCPS’. Thus, these must be reviewed and amended to give effect to the NZCPS ‘as soon as practicable’.²⁴ Council-led and private plan changes are also required to give effect to the NZCPS.
64. Assessing council progress in giving effect to the NZCPS in policy statements and plans is not straightforward because:
- Some councils undertake ‘rolling reviews’ rather than one-off reviews of these documents.
 - Regional and district plans are frequently changed through discrete one-off plan changes led by councils and/or private interests.
 - Some NZCPS 2010 provisions do not significantly change the policy direction from the NZCPS 1994 and so simply counting the number of documents that have become operative since December 2010 does not necessarily indicate the extent to which NZCPS 2010 policy is in effect on the ground.
65. A review of the progress of policy statements and plans through the Schedule 1 process indicates that implementation of the NZCPS 2010 has substantially progressed in some regions and districts and is ongoing elsewhere. However, progress is uneven. RPSs are most advanced, which is appropriate given the plans must give effect to the RPSs which, in turn, must give effect to the NZCPS 2010. Progress on new regional coastal plans and district plans is slower. The progress in RPS and regional coastal plan development is set out in *Part 2 – Background information*^{25 26} and summarised in Tables 1 and 2 below. One-off changes to RPSs or plans are not included.

²⁴ Resource Management Act, s55 (Local authority recognition of national policy statements).

²⁵ Part 2D: Progress of regional policy statements.

²⁶ Part 2E: Progress of regional coastal plans.

Part 1 – Overview and key findings

Table 1: Regional policy statement progress

Category	Number of councils
Operative regional policy statements changed since 2010 to give effect to the NZCPS 2010	1
Regional policy statements notified prior to and made operative since the NZCPS 2010	3
Regional policy statements notified since the NZCPS 2010	8
Pre-statutory draft regional policy statements released for public comment since 2010	1
Regional policy statements made operative prior to the NZCPS 2010 with no proposed or draft regional policy statements notified or released since	4

Table 2: Regional coastal plan progress

Category	Number of councils
Regional coastal plans notified since 2010	7
Regional coastal plans notified before 2010 and approved by the Minister of Conservation after 2010	1
Regional coastal plans under review with published intended dates for notification	3
Long-term plan or annual plan commitment to undertake a review of the regional coastal plan	2
Proposed and operative regional coastal plans pre-dating the NZCPS 2010 where no date for notification of a review has been stated in a long-term plan or annual plan (in most cases preliminary work on a review has commenced)	5

66. Progress on giving effect to the NZCPS 2010 through all regional plans other than regional coastal plans (e.g. land and water plans extending into the coastal environment) and district plans has not been specifically assessed and evaluated. Responses to this question via the local government survey completed as part of the Review indicate that a major portion of councils have made progress. Of the 28 responses from territorial authorities, 18 were either in progress or had completed giving effect to the NZCPS 2010.
67. Policy 29 of the NZCPS 2010 requires councils to amend regional coastal plans to remove Restricted Coastal Activities, which under the NZCPS 1994 had required particular procedures and ministerial approval. Councils have now completed this step.

Resource consents

68. Decision makers on resource consents (and designations) are required to ‘have regard’ to the NZCPS 2010.
69. Assessment of the effectiveness of the NZCPS 2010 through the consideration of resource consents is difficult. The Review did not find any evidence that decisions on resource consents are not having regard to the NZCPS 2010. Effective implementation of the NZCPS 2010 in higher-order plans is likely to be an important factor in achieving effective implementation through consents, particularly given the effect of *King Salmon* on the weight that is given to statutory documents.
70. To assess the indirect effects of the NZCPS 2010, the Review considered:
- Whether there have been discernible changes in the number of applications for coastal permits, their location and their outcome.
 - What impact the Supreme Court’s *King Salmon* decision for resource consent decision-making has in the coastal environment.
71. The biannual Ministry for the Environment RMA national monitoring survey provides information on resource consents in the coastal environment²⁷.
72. The 2014/15 national monitoring report found that the 17 regional or unitary councils processed 1586 coastal permit applications in that year. Most applications for coastal permits have been approved (1582). This approval rate is similar to other consent categories including land use, subdivision, discharge and water permits. The majority of the 1580 coastal consent applications for 2014/15 were concentrated in three regions (Marlborough (600), Waikato (308) and Northland (222)). This indicates that some parts of New Zealand are facing more intense and complex coastal issues than others (an issue discussed further below).
73. As noted above, King Salmon was concerned with an application for a private plan change. However, the decision’s implications for consent decision-making has been considered through a series of court decisions on resource consent applications since 2014 and has recently been considered by the High Court in *R J Davidson Trust v Marlborough District Council*.²⁸
74. In *R J Davidson*, the High Court found that the RMA’s purpose and principles (Part 2 of the RMA) should only be considered with respect to an individual consent application in limited circumstances, such as invalidity and incomplete coverage. Similarly, specific consideration of higher-order policy documents (like the NZCPS and RPSs) is not required except in the same limited circumstances, as plans (district or regional) give effect to them.

²⁷ Ministry for the Environment (2016). National Monitoring System for 2014/15. Ministry for the Environment, Wellington.

²⁸ *R J Davidson Family Trust v Marlborough District Council* [2017] NZHC 52.

Part 1 – Overview and key findings

75. The High Court’s decision on *R J Davidson* is significant for resource management decision-making beyond implementation of the NZCPS 2010. The High Court decision is currently before the Court of Appeal.

Court decisions

76. The NZCPS 2010 has been considered in numerous decisions of Boards of Inquiry, the Environment Court and the superior courts since coming into effect. References to the NZCPS in these decisions range from a passing mention through to substantive consideration of the document and its place in resource management decision-making.
77. The Review considered decisions that referred to the NZCPS 2010.²⁹ The analysis included both the number and type of decisions and substantive comments on NZCPS 2010 provisions. The results of this study are provided in *Part 2 - Background information*.³⁰
78. The analysis did not cover decisions that were the result of Environment Court appeals resolved through mediation, which there are a number of, including the Northland RPS appeals.
79. The review of decisions showed that:
- 35 cases have considered the NZCPS 2010 substantively, while a further 45 have considered it to a lesser degree, and a further 122 have included mention of the NZCPS.
 - 25 of the 35 substantive cases were Environment Court decisions. The NZCPS 2010 has been considered substantively seven times by the higher courts in proceedings relating to four different matters: the *King Salmon*³¹ decisions (one in the High Court and two in the Supreme Court), the *Man O’War*³² decisions (one in the High Court and one in the Court of Appeal), the *Transpower*³³ decision (High Court) and the *R J Davidson Family Trust*³⁴ decision (High Court).
 - There was a spike in substantive decisions in 2014 (which included *King Salmon*), 3 years after the NZCPS took effect.
 - 22 of the 35 substantive decisions have involved ‘consent matters’ (including designations because of the common requirement to have regard to the NZCPS). However, ‘plan matters’ account for 5 of the 7 substantive decisions from the higher courts.

²⁹ Decisions dated between 3 December 2010 and 31 February 2017 are included.

³⁰ Part 2F: New Zealand Coastal Policy Statement 2010 – A snapshot of court decisions by the numbers.

³¹ *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2013] NZHC 1; *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 38; *Sustain Our Sounds Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 40.

³² *Man O’War Station Ltd v Auckland Council* [2015] NZHC 767; *Man O’War Station Ltd v Auckland Council* [2017] NZCA 24.

³³ *Transpower New Zealand Ltd v Auckland Council* [2017] NZHC 281.

³⁴ *R J Davidson Family Trust v Marlborough District Council* [2017] NZHC 52.

- 21 of the 35 substantive decisions have involved unitary authorities, split evenly between Auckland (10) and Marlborough (9), with the remaining two in Tasman District.
 - Of the substantive unitary authority cases, 13 were concerned with consent matters and 8 were concerned with plan matters.
 - The regional council substantive decisions are also geographically concentrated (eight cases across four councils, including two cases involving Bay of Plenty Regional Council, two cases involving Hawke's Bay Regional Council, three cases involving Northland Regional Council and one case involving Waikato Regional Council).
 - 32 of the 35 substantive decisions concerned regional (rather than district) matters, and very few (3 of the 35) involved territorial authorities. None of the cases involving unitary authorities concerned their territorial authority functions.
80. The most commonly mentioned NZCPS policies in the substantive decisions were:³⁵
- Policy 13 – Preservation of natural character (24 mentions)
 - Policy 15 – Natural features and natural landscapes (22 mentions)
 - Policy 6 – Activities in the coastal environment (20 mentions)
81. The least commonly mentioned NZCPS policies in the substantive decisions were:
- Policy 10 – Reclamation and de-reclamation (0 mentions)
 - Policy 26 – Natural defences against coastal hazards (0 mentions)
 - Policy 28 – Monitoring and reviewing the effectiveness of the NZCPS (0 mentions)

Implementation support and guidance

82. DOC led a programme of support and guidance for councils immediately following gazettal of the NZCPS 2010. A steering group formed with Local Government New Zealand guided this work and an Implementation Plan was prepared, despite no additional funding being specifically allocated for implementation support on gazettal.
83. The programme involved active engagement with the Local Government New Zealand convened Coastal Special Interest Group, and regional workshops with district and regional councils on the NZCPS 2010 provisions and implementation.
84. The resources for this aspect of the implementation programme were reduced after

³⁵ This does not mean that the subject matter of each policy was substantively discussed each time it was mentioned even in the Category A cases. Some decisions identified significant numbers of NZCPS objectives and policies, e.g. *East Otago Taiapure Management Committee v Otago Regional Council* [2013] NZEnvC 001.

Part 1 – Overview and key findings

2013 in response to increasing priorities in other areas, particularly the Aquaculture Programme that was developed as part of the Government’s Business Growth Agenda.³⁶

85. DOC has continued to be involved in statutory and pre-statutory processes involving the NZCPS 2010 (particularly RPS and regional coastal plan development), including involvement in pre-notifications and making submissions on notified documents and some resource consent applications. Decisions following the *King Salmon* case have been regularly reviewed.
86. Alongside this work, DOC has prepared guidance material to support implementation, which is available on its website³⁷. However, not all policies are covered by the available guidance and it needs to be updated to take into account the findings in *King Salmon* and subsequent case law.
87. As it currently stands, the guidance on NZCPS implementation is incomplete. Feedback through the Review illustrated that councils and others would like this guidance to be completed with priority given to coastal hazard policies. Specific guidance on matters relevant to both the NZCPS 2010 and other national instruments (e.g. NPS – Freshwater Management with respect to estuaries) was also identified as a priority.
88. The Ministry for the Environment is also currently updating the national guidance on coastal hazards and climate change.

³⁶ Ministry of Building, Innovation and Employment (2015). *Building natural resources*. Ministry of Building, Innovation and Employment, Wellington. www.mbie.govt.nz/info-services/business/business-growth-agenda/pdf-and-image-library/towards-2025/BGA%20Natural%20Resources%20Chapter.pdf

³⁷ <http://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/policy-statement-and-guidance/>

Tangata whenua and the NZCPS

89. The NZCPS 2010 directs that Treaty principles should be taken account of by consulting and involving tangata whenua, referring to iwi management plans, recognising customary knowledge, and identifying and protecting sites and resources of particular importance to Māori.
90. This policy direction continues the direction that was established in the 1994 document but contains more detail on the actions to be taken by councils. The 2010 policy is also stronger in that it requires councils to provide opportunities for iwi to exercise kaitiakitanga rather than consider it a part of council plan making.
91. A number of councils said that they involved tangata whenua and took the Treaty of Waitangi into account not as a direct response to the NZCPS but because it is a requirement of the RMA.
92. Similarly, tangata whenua said that their involvement in RMA decision-making is not driven by the NZCPS but by their strong desire to be involved in decision-making in the coastal environment.
93. Tangata whenua were supportive of the policy intent in the NZCPS 2010 in relation to tangata whenua. Te Rūnanga o Ngāi Tahu staff said that they used the policies in the NZCPS to support their positions both inside and outside the coastal environment. In a number of cases, iwi were able to use policies in the NZCPS to support their arguments in planning processes.^{38 39}
94. The Review found that:
- Tangata whenua have a key relationship with the coast and a strong desire to be involved in decision-making in the coastal environment, including any changes to key policy documents such as the NZCPS. They see the NZCPS 2010 as supporting their strong interests in decision-making in coastal environment matters.
 - The NZCPS 2010 urges a good practice approach to involving tangata whenua but strong relationships between councils and iwi are critical to effective implementation. Both councils and iwi reported that the effectiveness of the approach set out in the NZCPS is, to a large extent, dependent on existing relationships between councils and iwi, and on particular individuals who are able to drive through good practice. Some iwi commented that they worked hard to have good relationships with the local council and that this took effort by both parties.
 - There can be financial constraints on iwi involvement in RMA and NZCPS decision-making, particularly for ‘non settled’ iwi. Tangata whenua noted that they often have to meet the costs of engaging with councils or other applicants, which creates challenges for some iwi, particularly those that are still negotiating settlement of historical Treaty of Waitangi claims. Some councils provide financial support for iwi to participate in RMA decision-

³⁸ Part 2G, Case study 2: Integrated management – Tauranga Harbour

³⁹ Part 2G, Case study 3: Iwi values – Auckland’s unitary plan process

Part 1 – Overview and key findings

making processes.

- Also relevant are the recent changes to the RMA under the Resource Legislation Amendment Act 2017, which include new tools and processes to facilitate improved working relationships between iwi and councils, and to engage Māori participation in RMA processes.

Key issues identified in the Review

95. This section discusses two key issues that were identified during the course of the Review:
- implementation and resourcing; and
 - the relationship between the NZCPS 2010 and other national instruments.
96. It also discusses key issues that have arisen with regard to four broad groupings of the policies in the NZCPS 2010:
- Strategic planning, and provisions for use, development and protection
 - Policies 7 (Strategic planning) and 4 (Integration)
 - Policies 13 (Preservation of natural character) and 15 (Natural features and natural landscapes)
 - Policy 11 (Indigenous biological diversity)
 - Policies 6 (Activities in the coastal environment), 8 (Aquaculture) and 9 (Ports) – the use and development policies
 - Policy 1 (Extent and characteristics of the coastal environment)
 - Water quality
 - Policies 21 (Enhancement of water quality), 22 (Sedimentation) and 23 (Discharge of contaminants)
 - Coastal hazards
 - Policies 24-27 relating to coastal hazards and Policy 3 (Precautionary approach)
 - Other
 - Policy 12 (Harmful aquatic organisms)
 - Policy 14 (Restoration of natural character)
 - Policy 17 (Historic heritage identification and protection)
 - Policies 18 (Public open space), 19 (Walking access) and 20 (Vehicle access)
 - Policy 16 (Surf breaks of national significance)
97. The most relevant NZCPS objectives are identified for each of the above policy groupings. However, the objectives are not confined to single issues, reaching across policy areas.
98. Policy 2 (The Treaty of Waitangi, tangata whenua and Māori) and Objective 3 matters are addressed in the sections entitled ‘Tangata whenua and the NZCPS’ in this report and *Part 2 – Background information*. In addition, issues raised by iwi are

Part 1 – Overview and key findings

addressed in the discussion of specific policies.

Implementation and resourcing issues

99. The Review found that a wide range of resourcing issues are impacting on the implementation of the NZCPS 2010 by councils. The *King Salmon* decision has required a focus on the wording of regional policy statements and plans in particular. Review findings include:
- *Some councils are poorly resourced for the number and complexity of coastal resource management issues faced in their region/district.* The NZCPS 2010 places significant emphasis on up-front identification of values and planning. All councils reported that finding the resources for this is challenging, but this challenge is particularly acute for smaller councils. Some of New Zealand's smallest councils by ratepayer base have complex coastlines and high-profile resource management issues.
 - *Demanding information requirements.* Even for well-resourced councils, the information requirements are extensive and expensive, and the planning processes that are required to reflect that information in planning documents are contentious. Particular note was made of the expense involved in collecting information on the offshore and remote parts of the marine environment, and for landscape and natural character assessments.
 - *An increased focus on resolving issues at the plan stage rather than the consent stage can take significant time and resources.* *King Salmon* has focused all participants in Schedule 1 processes on the precise wording of policy statements and plans. If an overall broad judgment in Part 2 is not to be applied, policy statements and plans become more important, as confirmed by recent case law. Councils reported that resolving issues at the plan level can take significant time and resources.
 - *Competing priorities of other national direction.* Councils reported issues around meeting implementation requirements for the NZCPS 2010 as well as other national policy statements (particular note was made of the NPS – Freshwater Management 2014 and, looking ahead, the NPS on Urban Development Capacity 2016).
 - *Lower priority for coastal issues for some regions/districts.* Some councils noted that the coastal resource management issues they face are lower priority than other issues for their particular regions/districts and so coastal planning is a lower priority for these councils.
 - *Some coastal resource management issues are inherently complex.* Some councils reported that they are grappling with particularly complex and contentious issues that are taking significant time and resources to address. Aquaculture was cited as an example.
 - *Insufficient implementation support and guidance.* Councils cited the work by the Ministry for the Environment on implementation of the

NPS – Freshwater Management as a good example of implementation support. By contrast, councils noted that central government guidance on the NZCPS 2010 is incomplete and not sufficiently detailed for local decision-makers. Some iwi also raised this concern. The lack of guidance on the coastal hazard policies was of particular concern to councils.

- *Quickly developing case law.* Cases continue to consider the implications of *King Salmon* beyond the plan change setting of the original decision in 2014. This ongoing development of case law has had implications (both in terms of the timing of new initiatives and the costs of implementing them) for councils as they adapt to changing circumstances while preparing policy statements and plans.

Relationships with other national instruments

100. The NZCPS 2010 now sits alongside four other NPSs that are in effect, three of which have been gazetted since 2010.⁴⁰ The Review identified that:
- The NZCPS 2010 differs from other national direction instruments in that its scope is a part of New Zealand (the coastal environment) rather than a particular issue. This means that issues about the relationship between national direction instruments are common. There is no central government guidance on the relationship between the NZCPS 2010 and other NPSs.
 - The *King Salmon* decision raises a potential issue of inconsistent ‘directive policies’ in different national instruments. An example given in the course of the Review was a potential inconsistency between the NPS – Electricity Transmission and Policies 13 and 15 of the NZCPS 2010.
 - Potential gaps (and some overlaps) between the NZCPS 2010 and the NPS – Freshwater Management were identified, particularly in relation to the effects of land use on coastal water quality and biological diversity. The lack of specific provisions for estuaries in either the NZCPS 2010 or the NPS – Freshwater Management was specifically raised in the Review.
101. The NZCPS 2010 is currently the only national direction instrument that specifically focuses on the coast. With the advent of more national direction, the relationship between any new instruments and the NZCPS 2010 will require careful consideration.
102. A proposed National Environmental Standard (NES): Marine Aquaculture was released for public comment on 14th June 2017. An NES for plantation forestry is in development.

⁴⁰ Other NPSs that are in force include Electricity Transmission (2008), Renewable Electricity Generation (2011), Freshwater Management (2014) and Urban Development Capacity (2016).

Part 1 – Overview and key findings

Strategic planning, and provisions for use, development and protection

Policies 4 (Integration) and 7 (Strategic Planning)

103. Policies 4 and 7 together direct councils to ‘consider where, how and when to provide for future residential, rural residential, settlement, urban development and other activities in the coastal environment’. They anticipate councils setting thresholds (including zones, standards or targets) and specifying acceptable limits for change where practicable. Policies 4 and 7 are overarching and closely related to the implementation of all other NZCPS 2010 provisions. NZCPS 2010 Objectives 2 and 6 are particularly relevant to these policies.
104. The focus of the NZCPS 2010 on ‘up-front’ coastal planning is an intentional change in policy direction. While it is not novel, the strong focus on strategic planning in the NZCPS is a clear national statement of its importance and potential. Direction on spatial allocation and use of the coast in policies and plans is expected to assist councils in managing adverse cumulative effects and the incremental loss of important coastal values. Effective spatial planning can also support provision of the development of strategically important facilities and services.
105. At regional and local levels the Review identified examples of integrated and strategic approaches to coastal planning, including those detailed in case studies on integrated management.^{41 42 43}
106. While strongly worded in terms of the need for a strategic approach, NZCPS policy is relatively open ended in terms of process, recognising that values and issues vary around New Zealand. The Review found little evidence of limit setting and allocation in the coastal marine area, other than the allocation of maritime space to particular existing uses such as aquaculture, marinas, ports, moorings, and other infrastructure and facilities. First in first served continues to dominate decision-making on the allocation of coastal marine space.
107. In particular, the Review found that:
 - There are some examples of strategic and integrated (including spatial) planning leading resource management plans. For those councils that have progressed statutory documents, the combined mapping and associated provisions have generally achieved better policy guidance on activities. For example, the approach in Bay of Plenty involves identifying activities that are ‘generally not appropriate’, ‘possible’ and ‘generally appropriate’ in terms of their effects on the ‘qualities and characteristics’ that make a coastal area outstanding for its natural character, natural features or natural landscape. The policies associated with these provisions provide for the consideration of cumulative effects and guidance on the types of conditions that should be imposed by decision makers if consent is granted for an activity. Similar approaches have also been advanced in other places, such as Auckland and Northland. Processes that focus on single uses or a class of uses are now less common.

⁴¹ Part 2G, Case study 1: Integrated management – Bay of Plenty Regional Council.

⁴² Part 2G, Case study 2: Integrated management – Tauranga Harbour.

⁴³ Part 2G, Case study 5: Giving effect to Policies 13 and 15 – Auckland Unitary Plan and Northland Regional Policy Statement

- Some strategic/spatial planning processes are taking place outside the RMA Schedule 1 process. An example of this is the Hauraki Gulf / Tikapa Moana Marine Spatial Plan, which was developed as part of the Sea Change – Tai Timu Tai Pari process.⁴⁴ This process involves iwi and a wide range of stakeholders, and considers all uses and values within the Gulf. The process to implement the Spatial Plan recommendations is still being determined.
 - Some participants in the Review reported that councils are not always making up-front planning a priority despite it being critical for the effective provision for use and development.
 - Managing cumulative effects can be particularly challenging (and expensive) at the resource consent stage in the absence of a robust, wider strategic framework.
 - Where strategic planning has not been progressed, there appears to be an increased tension about how to resolve issues raised by Policies 11, 13 and 15, particularly post the *King Salmon* decision (e.g. the management of marine activities, particularly aquaculture, in Marlborough). In the absence of an agreed regional or district strategic direction, resolution of these tensions can be particularly challenging.
 - Strategic planning with a spatial focus is resource intensive, which has impacted on the uptake of strategic planning exercises. Experience shows that it can be time consuming and hard to progress in the face of more immediate priorities (at national, regional and district levels).
 - Strategic planning processes have also grappled with the inherent tension between certainty (for resource users in the coastal environment as well as people who are concerned about the enduring protection of high values) and the flexibility that is required to allow for new opportunities and priorities. Some pressures from new and emerging activities that were anticipated in 2010 have not eventuated while others continue to be present.
108. Participants noted that further guidance about the policies, resources and opportunities to share experiences with strategic planning could improve the effectiveness of the NZCPS 2010 in the future.

Policies 13 (Preservation of natural character) and 15 (Natural features and natural landscapes)

109. Policies 13 and 15 direct the avoidance of adverse effects on outstanding areas among other things. These policies further direct the assessment and identification of outstanding areas with regard to the matters listed, and that statutory plans include direction where necessary. NZCPS Objectives 2 and 6 are particularly relevant to these policies.
110. The concept of ‘outstanding natural character’ was new to the NZCPS 2010. The ‘outstanding’ qualifier with respect to outstanding natural features and landscapes is also given in section 6(b) of the RMA. NZCPS 2010 policy focuses the most rigorous policy requirements to the areas with outstanding values. Cascading

⁴⁴ Sea Change – Tai Timu Tai Pari (Hauraki Gulf Marine Spatial Plan) (2017).

Part 1 – Overview and key findings

policy requirements open additional options (remedy and mitigate adverse effects) where areas have lesser value.

111. In recommending the NZCPS for approval, the Minister of Conservation said:

I would expect the implementation of the NZCPS 2010 to result in council plans that more clearly identify where development opportunities are likely to be constrained to protect areas of the coastal environment with special landscape, natural or cultural value. These areas would have to be identified through robust methodologies and consultation processes.⁴⁵

112. As noted above, *King Salmon* clarified that with respect to these policies:

- ‘avoid’ means ‘do not allow’ rather than ‘try to avoid’; and
- the meaning of appropriate/inappropriate depends on what the policy is directing.

113. Subsequent case law has clarified that:

- an assessments of values should be undertaken at a regional scale;⁴⁶ and
- the assessment is of the values and so should not differ depending on the outcome.⁴⁷

114. The Review found that work within policy statements and plans to give effect to Policies 13 and 15 is ongoing. Some documents now clearly identify outstanding areas, describe their characteristics and values, assess the effects of activities, and set policies for their ongoing management. Councils reported that this work has been challenging and expensive but has resulted in planning documents that provide more certainty. However, some councils have yet to commission work and/or progress reviews of policy statements and plans to give effect to these NZCPS 2010 provisions.

115. The implications of the *King Salmon* decision for Policies 13 and 15 were of significant interest to many review participants. The Review heard very different views on the effectiveness of these policies following *King Salmon*, particularly with regard to whether the balance between these policies and others in the NZCPS 2010 remains appropriate. However, concerns about the lack of nationally consistent and robust methodologies to identify outstanding areas were almost universal.

116. The issue of ‘balance’ was clearly to the fore for the Board of Inquiry on the proposed NZCPS, who reported:

Many submissions commented on the need for balance in the NZCPS. However, that balance was generally perceived and portrayed differently according to the interests of the submitter. We conclude that there are major problems with the current balance applied by decision makers, reflected for example, in the extent of and growth in residential and rural residential development in the coastal environment. As a result the coastal environment does not reflect the ‘sustainable management of natural and physical resources’ which is the purpose of the Act. The NZCPS needs to send a stronger message, a national

⁴⁵ Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010, para 24.

⁴⁶ *Man O’War Station Ltd v Auckland Council* [2017] NZCA 24.

⁴⁷ *Man O’War Station Ltd v Auckland Council* [2017] NZCA 24.

*direction sought by many submissions including a number from district and regional councils.*⁴⁸

117. In recommending the NZCPS 2010 for gazettal, the Minister of Conservation accepted many of the Board’s recommended amendments to the proposed NZCPS, making some amendments:
- ... to ensure that the NZCPS does not cross the line from effective policy direction to excessive prescription, and that it gives appropriate relative weight and attention to protecting natural values and allowing for economic use and development.*⁴⁹
118. During the ten Sector Group Workshops that were held as part of the Review, industry groups expressed a view that they had accepted the ‘balance’ in the NZCPS 2010 prior to the Supreme Court’s *King Salmon* decision. However, the aquaculture and minerals industry groups in particular reported significant concerns with Policies 13 and 15 following *King Salmon*. Specifically, there was a concern that these policies could be read as giving no ability for any activity to be approved regardless of its importance if it has adverse effects on outstanding areas, as such effects must be avoided. Industry groups pointed to ongoing court action as demonstrating uncertainty as a result of the *King Salmon* decision.
119. Some industry representatives expressed further concern that recent court decisions on resource consent applications would mean that restrictive policies in plans that have been produced to give effect to directive NZCPS policies would not be appropriately balanced with reference to the RMA’s purpose and principles. Potential obstacles to obtaining replacement consents for consents that had been issued for a fixed term were specifically raised, particularly the costs of increased uncertainty.
120. During the Aquaculture Sector Group Workshop, industry participants were concerned that there is a particular conflict between the best sites for expansion of aquaculture and outstanding areas, and that it would be costly to resolve issues relating to outstanding values.
121. Industry groups raised some different options to address their issue, including softening the protective directive policies, strengthening the policies enabling development and amending the NZCPS 2010 to make it expressly ‘subject to Part 2 (the purpose and principles)’ beyond the limited circumstances set out by the Supreme Court. They pointed to the fact that the understanding of the applicable law at the time the NZCPS 2010 was gazetted was that giving effect to the NZCPS 2010 in policy statements and plans would require consideration of Part 2 of the RMA.
122. In sharp contrast, environmental groups strongly supported the current wording of Policies 13 and 15, saying that they do not preclude appropriate development in appropriate locations at an appropriate scale. They pointed to the certainty provided by the policies to all those with interests in the coastal environment and questioned how a case-by-case consideration of the Act’s purposes and principles could allow predictable policy setting and implementation. Reflecting on their implementation experience, some councils also expressed this view.

⁴⁸ Board of Inquiry, Volume 1, p. 5.

⁴⁹ Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010.

Part 1 – Overview and key findings

123. The environmental groups noted the Board of Inquiry's concerns that a case-by-case 'balancing approach' had not achieved sustainable management of natural and physical resources, and that the NZCPS needed to set stronger national direction. They considered it premature to change the NZCPS, on the grounds that time (and guidance) is needed to enable regional policy statements and plans to 'give effect' to the NZCPS by identifying areas and particular effects that needed to be avoided rather than simply prescribing 'avoiding all adverse effects'. They also said that effectiveness monitoring is required before any such changes could be considered. Indicators that could be used to monitor progress were suggested and are detailed in the Sector Group Workshops report⁵⁰, including:

- Degradation of outstanding areas under the 'Values and characteristics' approach
- Extent of sporadic development
- Extent of consolidation of existing areas in response to development pressures
- Uptake of marine spatial planning tools

124. For councils, the policy requirement to identify outstanding values was clear and had encouraged them to undertake the necessary survey work to give effect to Policies 13 and 15 of the NZCPS 2010. Some regional councils have undertaken this work in collaboration with district councils.

125. Implementation of the policy direction to 'avoid' was an area where councils have made significant progress since *King Salmon* where this was coupled with their strategic planning work. Areas that have been identified as outstanding are regionally important, and there is a high degree of commitment to applying the policy in a way that provides appropriately for use, development and protection. The work by councils has involved identifying the qualities and characteristics that make these areas 'outstanding' and developing policy to avoid adverse effects on those qualities and characteristics, rather than the more generic approach of avoiding all adverse effects. Some of the same issues have also arisen with respect to Policy 11.

126. As detailed in the Auckland Unitary Plan and Northland Regional Policy Statement Case Study⁵¹, the Auckland Independent Hearing Panel adopted an approach of considering the appropriateness of objectives and policies by assessing them against the following questions:

- a) What is the relevant environment for the purpose of the particular objective or policy?
- b) What particular use or activity ought to be enabled in that environment?
- c) What particular value or values of that environment ought to be protected?
- d) What kinds of effects of the activities are relevant to such protection of values and which of those effects are adverse in the context of the relevant environment?

⁵⁰ Part 2C: Effectiveness review of the NZCPS - Sector Group Workshops.

⁵¹ Part 2G, Case study 5: Giving effect to Policies 13 and 15 - Auckland Unitary Plan and Northland Regional Policy Statement.

- e) Are the adverse effects to be absolutely avoided or are they to be managed in terms of matters of degree?
 - f) If the adverse effects are to be managed, what are the thresholds or other parameters for appropriate management?
127. Questions of scale and effect were important for a number of other council processes and were often a focus. For some councils, the protection of outstanding areas has been a continuation of the first-generation plan provisions prepared under the NZCPS 1994, with some refinement, and so giving effect to Policies 13 and 15 has not represented a major change. However, for others, where there had been little or no systematic identification of outstanding values in first-generation plans, it represents a bigger change.
 128. More information on the Auckland approach can be found in the examples provided in the Auckland Unitary Plan and Northland Regional Policy Statement Case Study in *Part 2 - Background information*. In these examples, outcomes included the protection of outstanding areas from inappropriate uses, recognition of places where existing uses were not adversely affecting outstanding areas and recognition of earlier planning decisions to consolidate uses in particular areas to avoid sprawling coastal development.
 129. In terms of the question of ‘balance’, a clear issue is the significantly different views of different interests (particularly the aquaculture and environmental sectors) on whether or not some activities with adverse effects on outstanding values should be allowed to occur.
 130. Substantive recommendations on the wording of Policies 13 and 15 or how they are implemented were beyond the scope of the Review. However, the Review did note the depth of some industry concern and the depth of environmental group concern that these policies might be changed. The steady progress of some councils in implementing the policies was observed but the extent of further implementation work that is required is also clear. The implementation issues for Policies 13 and 15 are clearly complex.
 131. The Review found that there are polarised views on whether some activities are so important (or present such significant benefits) that their adverse effects should be able to be remedied or mitigated rather than simply avoided, and who should be responsible for such decisions if a different approach was preferred over current NZCPS 2010 policy. There are also polarised views on whether ‘balancing’ should occur with respect to each decision that is made in consideration of policy statements, plan contents and resource consent applications. The Review found that any further assessment of the NZCPS 2010 policy in relation to the directive policies (particularly Policies 13 and 15) should include a detailed audit of the work that has been completed or is currently underway in implementing the directive policies on the ground (including in policy statements and plans). The Review highlighted the wide interest in these policies, and the clear interrelationships between the directive policies and the balance of the NZCPS 2010, particularly in relation to integrated management and strategic planning for use and development. Therefore, any further assessment should not focus on any single industry. Fundamentally, the scope of the RMA’s purpose and principles to provide for different formulations would need to be carefully considered.
 132. The second key issue relating to the effectiveness of Policies 13 and 15 is the lack of consistent methodology. The focus of the NZCPS 2010 on planning (rather than

Part 1 – Overview and key findings

consents) requires the identification of important values in policy statements and plans, which itself depends on ‘robust methodologies and consultation processes’.⁵² However, while significant effort has been put into methodological issues at a regional level and some effort has been seen at the national level, the lack of widely accepted consistent methodologies (for both identifying outstanding natural character, natural landscapes and natural features, and assessing any adverse effects on them) was repeatedly and strongly raised as a key concern by participants in the Review.

133. Councils were particularly concerned about the resources that would be required to resolve methodological issues each time a regional or district assessment process begins. Some recent decisions indicate that the courts continue to grapple with methodological issues (such as scale, and the distinction between natural character and landscape) on a case-by-case basis. Review participants reported that ongoing methodological issues represent an increasing cost and uncertainty for all participants in the planning process.
134. The relevance of natural character and outstanding natural features and landscapes to resource management planning extends beyond the coastal environment. However, the NZCPS 2010 requirement to identify outstanding areas and *King Salmon* have focused attention on methodological issues in the coastal environment.
135. The Ministry for the Environment (with help from DOC and the NZ Institute of Landscape Architects) is looking at ways of achieving greater consistency in landscape assessment methods.

Policy 11 (Indigenous biological diversity)

136. Policy directing the avoidance of adverse effects to protect indigenous biodiversity is not new to the NZCPS 2010 as the NZCPS 1994 contained policy directing the avoidance of adverse effects on specified values.⁵³ NZCPS Objectives 1 and 2 are particularly relevant to Policy 11.
137. For the most at-risk species and habitats listed in Policy 11(a), this policy directs protection of indigenous biological diversity in the coastal environment and that

⁵² Minister of Conservation, New Zealand Coastal Policy Statement, Cabinet Paper 2010, EGI (10) 238, October 2010.

⁵³ NZCPS 1994, Policy 1.1.2:

It is a national priority for the preservation of the natural character of the coastal environment to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna in that environment by:

- (a) avoiding any actual or potential adverse effects of activities on the following areas or habitats:
 - (i) areas and habitats important to the continued survival of any indigenous species; and (ii) areas containing nationally vulnerable species or nationally outstanding examples of indigenous community types;
- (b) avoiding or remedying any actual or potential adverse effects of activities on the following areas:
 - (i) outstanding or rare indigenous community types within an ecological region or ecological district; (ii) habitat important to regionally endangered or nationally rare species and ecological corridors connecting such areas; and (iii) areas important to migratory species, and to vulnerable stages of common indigenous species, in particular wetlands and estuaries;
- (c) protecting ecosystems which are unique to the coastal environment and vulnerable to modification including estuaries, coastal wetlands, mangroves and dunes and their margins; and
- (d) recognising that any other areas of predominantly indigenous vegetation or habitats of significant indigenous fauna should be disturbed only to the extent reasonably necessary to carry out approved activities.

adverse effects are to be avoided. For the at-risk species and habitats listed in Policy 11(b), this policy directs that significant adverse effects are to be avoided, and other adverse effects are to be avoided, remedied or mitigated. The section 32 analysis anticipated that Policy 11 would provide continued or enhanced protection for coastal indigenous biodiversity through RMA mechanisms.

138. In contrast to Policies 13 and 15, Policy 11 stipulates priorities for protection within the NZCPS 2010 and fewer methodological issues have arisen. The cases on appeal confirm this difference as, for the large part, they have not involved disputes over whether particular values fell within Policy 11 but rather whether a proposed activity would have an adverse effect and, in some cases, the extent to which such an effect could be adaptively managed.
139. The survey results showed that many councils have taken steps to give effect to Policy 11 in their updated regional policy statements and plans; however, some councils have yet to start this work. In all areas, implementation of the NZCPS 2010 is constrained by a lack of knowledge about the cumulative effects and how to manage them, and the values, especially in offshore and remote areas and for mobile species.
140. Some councils are funding biodiversity investigations to identify indigenous biodiversity in the coastal marine area. This work is more advanced in regions that have particular concentrations of coastal pressures. Marine investigations are costly, but partnerships with other statutory agencies, such as DOC, have helped to reduce these costs (e.g. in Marlborough).
141. The Review found polarised views on the effectiveness of Policy 11 and its implementation. The concerns about ‘balance’ following *King Salmon* that were discussed above in relation to Policies 13 and 15 were also expressed in relation to Policy 11. Many industry groups are finding Policy 11 problematic, especially those that operate within the coastal marine area such as aquaculture. For example, these groups described Policy 11 as more ‘absolute’ than Policies 13 and 15 (as these policies refer to ‘protection from inappropriate development’, which implies that a judgement call will be involved). Industry groups questioned whether Policy 11 had been intended to give ‘absolute protection’ for indigenous biodiversity within the scope of Policy 11(a).
142. In sharp contrast, environmental groups talked about the multiple pressures and threats facing New Zealand’s oceans, coastal marine habitats and wildlife, and cited the recent report *Our Marine Environment 2016*⁵⁴, which was prepared under the Environmental Reporting Act 2015 by the Ministry for the Environment and Statistics New Zealand. Critical issues in the coastal environment relate to the threat of extinction to indigenous birds and mammals, and the degradation of coastal marine habitats and ecosystems, with the most important pressures including excess sedimentation, seabed trawling, marine pests, and nutrient enrichment from upstream land use and freshwater management decisions.

⁵⁴ Ministry for the Environment & Statistics New Zealand (2016). *New Zealand’s Environmental Reporting Series: Our marine environment 2016*. Wellington.

Part 1 – Overview and key findings

143. Environmental groups expressed concern that Policy 11 is often poorly addressed in coastal plan making and other decision-making because of gaps in information about the values that are present. From their perspective, councils are prioritising other NZCPS matters such as mapping natural character and, if ecological surveys do occur, the near shore and land environments (where most subdivision, use and development occurs) are prioritised over offshore areas. They raised concerns about the lack of understanding of the need to protect areas or habitats for mobile species, such as seabirds and dolphins, as well as the effects of activities that have significant benthic effects, such as trawling and dredging.
144. The restoration of ecosystems and indigenous biodiversity is a significant issue for iwi. Some iwi have been directly involved in restoration projects, enabling a sharing of ideas on management approaches and the incorporation of traditional knowledge into western science research. The NZCPS 2010 policies on biodiversity in particular focus on protection rather than restoration as an activity in and of itself.
145. Particular challenges for the management of indigenous biodiversity in the coastal environment include:
- The need to manage cumulative effects, including setting limits or thresholds for change, and assessing the effect of multiple activities and consents, e.g. direct and indirect discharges.
 - The importance of addressing ‘areas/habitats’ for mobile species, including protected species such as seabirds, whales, dolphins and New Zealand sea lions, information about which is again often limited.
 - The continued adverse impacts on species and habitats by decision-making outside the coastal environment, such as land use and freshwater management decisions impacting on estuaries.
146. The Review found that:
- Although the issues addressed by Policy 11 are not new, this Policy has lifted the profile of indigenous biodiversity in RMA decision-making. Many new policy statements and plans identify significant ecological areas in the coastal environment, to the extent that these areas have been surveyed by councils. Policy 11 implementation has been very limited for offshore and remote areas in terms of mapping due to the cost and difficulty.
 - A lack of information is a major challenge in giving effect to Policy 11, with decision-making on limits often being left until the consenting stage, at which point it can be difficult to satisfactorily answer the many questions that arise. The information gaps include the abundance and distribution of species, the effects of activities on them, and workable limits. Knowledge of offshore and remote areas is also limited.
 - Constraints in the resourcing and capability of councils, and/or tools are significant challenges in this area.

147. Priorities for further work on Policy 11 include implementation guidance, filling information gaps and sharing information between agencies. The strategic planning framework should be considered a catalyst for further work involving iwi and stakeholders, including agencies with different statutory responsibilities and resourcing. The relationship with any further work related to Policies 13 and 15 should also be considered.

Policies 6 (Activities in the coastal environment), 8 (Aquaculture) and 9 (Ports) – the use and development policies

148. A number of important coastal activities depend on the implementation of Policies 6, 8 and 9 and their related objectives, as do other interests with a shared use or interest in how that space is used. Relevant uses include transport infrastructure, tourism, telecommunications, aquaculture, access facilities such as wharves and moorings, settlements for housing and papakainga, and public recreation facilities. Policy 6 sets out the issues to be considered in relation to activities in the coastal environment when developing plans and making decisions, while Policies 8 and 9 specifically identify aquaculture and ports as activities requiring recognition. NZCPS Objectives 2 and 6 are particularly relevant to these policies.
149. All participants in the Review acknowledged that the NZCPS 2010 includes a range of provisions that seek to allow for appropriate subdivision, use and development of the coastal environment. Through the Sector Group Workshops, industry groups commented on the relative weighting of policies, particularly since the *King Salmon* decision, and considered that, in their view, the use and development policies are less directive than others such as 11, 13 and 15. There was concern that in the event of any conflict between the use and development policies and policies such as 11, 13 and 15, use and development would always be relegated.
150. There was also widespread agreement that giving effect to the use and development policies is closely linked to strategic planning through the implementation of Policy 7.
151. There are clear interdependencies between the use and development focused policies and those relating to strategic planning and the management of outstanding values. Focusing particularly on the use and development policies, the Review found that:
- Coastal resource management issues vary significantly around New Zealand. Analysis of consents and case law indicates a particular concentration of use and development applications in Marlborough, and to a lesser extent in the north of New Zealand (Waikato, Auckland and Northland).
 - Marlborough cases have focused on aquaculture and have raised a wide range of issues (navigation, indigenous biodiversity, effects on productivity, natural character, landscape, biosecurity).
 - Substantive decisions concerning ports and port operations have occurred

Part 1 – Overview and key findings

in Otago and the Bay of Plenty (both on dredging and deposition).⁵⁵

- As noted with respect to Policy 7, strategic planning within the coastal environment is critical for the effective provision for use and development but is not always a priority for councils. It is often challenging and costly to plan positively for use. Some regions have prioritised other issues (e.g. freshwater) over coastal planning and a number of the existing plans are dated. Planning for uses that straddle land and sea, such as ports, requires an integrated approach that considers district and regional functions.
152. There has been substantial work in some second-generation policy statements and plans but there are significant gaps in the progress of regional coastal plans. Key aquaculture regions (by number of consents) are Marlborough, Waikato and Northland. Second-generation RPSs are now operative in Northland, Auckland and Waikato (each of which identifies outstanding areas). Second-generation aquaculture provisions are still to be notified in Marlborough and Waikato, although provisions relating to outstanding areas are included in the recently notified proposed Marlborough Environment Plan.
153. Northland's second-generation regional coastal plan will be notified later in 2017. The draft plan includes the outcomes of an earlier change to the first-generation plan to identify specific areas where aquaculture is appropriate, inappropriate or can be considered on a case-by-case basis. The Auckland Unitary Plan is past the point of challenge in terms of its aquaculture provisions although these focus on existing aquaculture activities rather than new space.
154. Analysis of coastal land use change 1996-2012 finds a significant increase in urban area over that time⁵⁶. Some anticipated pressures from new and emerging activities have not eventuated but there is growing interest in offshore and remote locations. Demand for new uses, such as marine energy generation, is much lower than anticipated.

Policy 1 (Extent and characteristics of the coastal environment)

155. Policy 1 lists matters that are relevant to determining the coastal environment's extent and characteristics, and its management. The Section 32 report is clear that the intent of this policy is to provide a baseline for identification of the coastal environment, including coastal assets and values in plans and decision-making, and to achieve greater national consistency and certainty. All NZCPS objectives are relevant to this policy.
156. A range of methodologies are being used to define the extent of the coastal environment on the ground. Of the examples considered as part of the Review, none adopted the catchment approach that was envisaged by the Board of Inquiry on the proposed NZCPS.⁵⁷

⁵⁵ Part 2G, Case study 4: Port dredging - Otago

⁵⁶ Part 2H: Coastal population and land uses.

⁵⁷ BOI Report and Recommendations to the Minister of Conservation (2009).

157. It could be helpful if Policy 1 directed identification and mapping of the coastal environment, although this does appear to be happening as a matter of practice. The lack of a consistent methodology is of greater significance and some review participants suggested that further consideration should be given to methodological issues. The matters listed in Policy 1 leave considerable room for differences in practice.
158. The Review found that:
- Many councils have undertaken coastal environment mapping, which has helped with the implementation of the NZCPS 2010. The benefits of identifying the extent of the coastal environment in plans include fewer arguments about the coastal environment boundary. Examples of where this approach has been used include Waikato and Northland RPSs.
 - Other councils have adopted alternative approaches to mapping, for example, Auckland.
 - A regional-scale approach to mapping has provided a more coordinated and consistent outcome for subsequent district planning.
 - Mapping methodology is not consistent or systematic. There would be some benefit in having a systematic approach to the identification of the coastal environment that also acknowledges the different categories of relevant policies, such as landscape and coastal hazards, where the relevant landward extent varies depending on the factor under consideration.

Water quality policies

159. Objective 1 requires that coastal water quality is maintained and enhanced where it has deteriorated from its natural condition alongside other requirements. Policy 21 (Enhancement of water quality) requires that priority is given to improving degraded water quality where there are significant adverse effects on values and uses, including aquaculture, recreational and cultural activities, and requires engagement with tangata whenua. Policy 22 deals with sedimentation and Policy 23 relates to the discharge of contaminants, including sewage, stormwater and discharges from ports and other marine facilities.
160. The Section 32 analysis described the intent of the policies on water quality, sedimentation and discharges as:
- The improved identification in plans of key areas for improving coastal water quality, and the increased application of relevant controls and conditions.
 - For sedimentation, a more consistent application of plan controls to address sediment release and monitoring conditions on consents.
 - For discharges, a more consistent minimisation of mixing zones, the continued retreat from the discharge of raw sewage, the increased use of plan controls and consent conditions to manage stormwater discharges,

Part 1 – Overview and key findings

and the continued control of discharges from port and marine service sites.

161. The Review heard that the water quality objective of ‘maintaining coastal water quality, and enhancing it where it has deteriorated’ is generally appropriate.
162. Management across the land/coast boundary and between freshwater and coastal water was raised as an issue. The issues that were most often raised in relation to Policies 21–23 provide examples of this:
 - Sedimentation and the land-sea interface, including the downstream impact of land use inland of the coastal environment, particularly its effects on sensitive sites and coastal resource users who are dependent on high water quality.
 - Sewage/stormwater management and increasing urban pressures in general.
163. Feedback received through the Review included an issue with the lack of integration between land use, freshwater and coastal water management including standards. Sedimentation was specifically mentioned in the Sector Group Workshops by the aquaculture industry and environmental groups and in discussions with tangata whenua, with specific reference to the effects of different land uses, including forestry, on estuaries and coastal water quality. It was also stated that regional councils have made implementation of the NPS – Freshwater Management a priority for their individual regions.
164. Management of the effects of land use on coastal wetlands and estuaries was identified as a particular issue that spans both the NPS – Freshwater Management 2014 and the NZCPS 2010. It was considered that the interface between these two policy statements requires a special focus in the development of regional plans, with differing views on how well integration had been achieved to date. There was no indication through the Review that the NPS – Freshwater Management and NZCPS coastal water policies are inconsistent and could not be implemented in tandem.
165. The effectiveness of policy development for coastal water quality in regional coastal plans is hampered by a lack of technical information (particularly about baseline water quality) and the cost of obtaining such information. There are limited examples of policy statements and plans that identify areas of degraded coastal water quality. There is limited national guidance on the NZCPS water policies and that guidance has not been updated following *King Salmon*. Similarly, Councils have requested further guidance for some aspects of the NPS-FM implementation. The Ministry for the Environment is currently working on guidance in relation to the impacts of freshwater contaminants on estuaries.
166. The tangata whenua perspective on the discharge of sewage is clear and unambiguous. Tangata whenua who were contacted as part of the Review supported the strengthened policy direction in the NZCPS 2010 but noted that there remains a tension between tangata whenua values and council and community views on practicality and cost.

167. Practicality issues around the separation of sewage and stormwater systems were raised. The water industry groups were particularly concerned that following *King Salmon*, Policy 23(2) could effectively be interpreted as prohibiting the discharge of human sewage. Policy 23(4) relating to cross contamination was noted but the upcoming need for replacement discharge consents and the growing Auckland population heightened potential conflicts.
168. In summary, the Review found that:
- Sedimentation and the land-sea interface, including the downstream impact of land use inland of the coastal environment, and sewage and stormwater management from increasing urban pressures, continue to be challenging.
 - Options for coordinated implementation of the NZCPS 2010 and the NPS – Freshwater Management should be identified. A better understanding of the practical problems facing local government is likely to be useful.
 - Tangata whenua support the strengthened water quality policy direction in the NZCPS 2010. However, there remains a tension between tangata whenua values and council and community views on practicality and cost.
 - There is a lack of baseline information on coastal water quality. The effectiveness of policy development for coastal water quality in regional coastal plans is hampered by a lack of technical information (particularly about baseline water quality) and the cost of obtaining such information.
 - The practicality of separating sewage and stormwater systems continues to be challenging.

Coastal hazard policies

169. The NZCPS 2010 contains new policies on coastal hazards. The Section 32 report is clear that the intent of the coastal hazard policies is to encourage a shift from the predominant focus on hard protection works to a ‘portfolio’ of strategies for reducing hazard risks for both new developments and existing assets.
170. Policies 24–27 cover the management of coastal hazard risks. They include requirements for local authorities to identify hazard areas, undertake coastal hazard risk assessments for a timeframe of ‘at least the next 100 years’ and consider the effects of climate change. NZCPS 2010 Objectives 4, 5 and 6 are particularly relevant to these policies.
171. Policy 3 promotes a precautionary approach to managing activities in the coastal environment when their effects are uncertain but potentially significantly adverse, particularly where the use and management of coastal resources are potentially vulnerable to the effects of climate change.
172. Councils were generally supportive of the coastal hazard policies but noted that implementation has been particularly difficult and controversial at the territorial

Part 1 – Overview and key findings

authority level.⁵⁸ Coastal hazard management also requires particular technical expertise. Two district councils have withdrawn provisions seeking to implement these policies following community concerns about the methodologies that were applied to identify hazard lines and the inclusion of those lines in plans.

173. At the regional level, the main implementation issue that was identified through the Auckland Unitary Plan process was the lack of strong national direction on how this identification should be carried out. Auckland Council supported the policies but considered that they are too high level to support the intended outcomes and do not recognise the challenges of implementation (including data availability, community, iwi and stakeholder values, and financial constraints). Similarly, one iwi pointed to sea level rise as a significant issue in relation to their cultural heritage immediately adjacent to the coast.
174. Responding to coastal hazards in urban areas is particularly challenging as there is often a presumption from the community that developed areas will continue to be protected because of the risk presented to public access, amenity values, natural and built assets (including residential property), and essential infrastructure. Managed retreat in urban areas is difficult as there are often limited relocation options. Auckland Council suggested that a wording change from ‘managed retreat’ to ‘managed realignment’ could be beneficial.⁵⁹
175. In areas such as Auckland, pressure for new housing is conflicting with best practice to set development back from the coast. This points to a need for stronger alignment between the NZCPS and the RMA versus the Building Act and any future NPS for Natural Hazards, particularly the need for consistency between timeframes, extreme events and the assessment of climate changes effects.
176. In summary, the Review found that:
 - Implementing the NZCPS 2010 coastal hazard policies is very challenging, particularly with regard to data availability, a lack of community awareness, understanding and acceptance of the risks associated with coastal hazards, and financial constraints.
 - Implementation has been hampered by a lack of national guidance. Guidance and support on appropriate risk assessment methodologies is needed so that councils can engage with communities in identifying agreed levels of risk that communities are willing to tolerate. Guidance is also needed on how coastal inundation, storm surge and sea level rise should be mapped.
 - The 100-year risk timeframe presents particular challenges. While councils generally consider this timeframe appropriate, it is inherently difficult to implement, requiring communities to think well beyond the established planning timeframes as well as their own lifetimes.

⁵⁸ Part 2G, Case study 6: Managing coastal hazard risks – Mapua and Ruby Bay

⁵⁹ Parr 2G, Case study 7: Managed retreat in an urban environment – Auckland Council

- Consistency in RMA national direction on natural hazards is essential. The work that is planned as part of the Government’s national direction programme was particularly noted. Consideration should be given to ensuring that the RMA and the Building Act 2004 work well together, particularly in relation to the control of new structures in areas prone to coastal hazards (e.g. consistency between timeframes (100 vs. 50 years), and methodologies for identifying and assessing risks associated with climate change effects).
- More support for planning at regional and national levels is likely to achieve a better outcome because coastal hazard management can be particularly contentious at the local level. There are many issues at stake (e.g. infrastructure, private property and access to public space), compounding the difficulties associated with addressing such challenging issues at the local level and within short-term electoral cycles.

177. It is noted that in her 2015 report *Preparing New Zealand for Rising Seas: Certainty and Uncertainty*⁶⁰, the Parliamentary Commissioner for the Environment (PCE) explained very clearly the challenges for councils in dealing with coastal hazard risks and made a number of recommendations, including on improving the direction and advice given to local councils. While the PCE recommended that the NZCPS provisions about planning for sea level rise be moved from the NZCPS to national direction on natural hazards, the Review did not identify the nature and placement of the current provisions as an issue.
178. It is also noted that the Ministry for the Environment is currently updating the national guidance on coastal hazards and climate change. At the same time, DOC is preparing guidance on the NZCPS coastal hazard policies.

Other NZCPS provisions

Policy 12 (Harmful aquatic organisms)

179. Policy 12 directs the control of activities that pose biosecurity risks, including activities in or near the coastal marine area that could have adverse effects on the coastal environment by causing harmful aquatic organisms to be released or otherwise spread.
180. The Board of Inquiry noted in its final report:

Fundamentally, the place to deal with biosecurity is not only under its related legislation but the RMA as well. ... The Board considers it is essential that biosecurity risks are accounted for under the NZCPS and subsequent plans. The potential risk to New Zealand’s indigenous biodiversity, the aquaculture, salmon and fishing industries, and consequently any economic and social wellbeing, is

⁶⁰ Parliamentary Commissioner for the Environment (2015). *Preparing New Zealand for Rising Seas: Certainty and Uncertainty*. Parliamentary Commissioner for the Environment, Wellington.

Part 1 – Overview and key findings

*far too real to ignore consequences with such a high potential impact.*⁶¹

181. The Review found that:

- Regional councils are giving effect to Policy 12 as they review their regional coastal plans, with particular attention being paid to the risks of introducing harmful aquatic organisms via vessel hull fouling activities such as hull inspection and cleaning to manage biofouling.
- Greater consistency between regions is desirable from central and local government and stakeholder perspectives.
- The integrated use of all tools that are available to achieve Policy 12 is desirable, including RMA provisions in RPSs and regional coastal plans, pathway management plans under the Biosecurity Act, and consistency with other tools such the *Craft Risk Management Standard – Biofouling on Vessels Arriving in New Zealand*⁶² (prepared under the Biosecurity Act 1993).

Policy 14 (Restoration of natural character)

182. Policy 14 directs that the restoration of coastal natural character is to be promoted through RPSs, plan provisions and regulatory decisions. This policy includes possible approaches to restoration, such as habitat creation for indigenous species and the redesign of structures that interfere with ecosystem processes.

183. Given the focus on up-front planning, Policy 14 has been effective in achieving policies and consent conditions that support restoration. Policy 14 is being implemented on a consent-by-consent basis and the results are often small scale and beneficial locally rather than making a significant contribution to restoration or rehabilitation at a district or regional scale. Well-designed infrastructure projects, such as major new roads, provide larger-scale opportunities.

184. Particular questions that were identified in the Review included:

- Is there support for a national or regional approach to restoration and, if so, should outstanding and/or high natural character areas be restored or rehabilitated as a priority?
- How can restoration or rehabilitation of the natural character be undertaken in a meaningful way and how well are restoration provisions enforced?
- How could tools such as coastal occupation charges (under the RMA) fund restoration or rehabilitation by a council?

⁶¹ BOI Report and Recommendations to the Minister of Conservation (2009). Vol 2, pp. 73-74.

⁶² Ministry for Primary Industries (2014). *Craft Risk Management Standard – Biofouling on Vessels Arriving in New Zealand*. Ministry for Primary Industries, Wellington.

Policy 16 (Surf breaks of national significance)

185. The intent of Policy 16 is to ensure that nationally significant surf breaks are identified and protected, and that access to and use of them is maintained.
186. Policy on surf breaks is new to the NZCPS 2010. The Board of Inquiry noted that:
- ... some of New Zealand's surf breaks are nationally and even internationally significant, attracting visitors from around the world, as well as providing a variety of surfing opportunities including some for learning on nursery surf breaks. The quality of the wave can potentially be compromised by developments in the swell corridor seaward of the break, and the enjoyment of surf breaks by surfers compromised by discharges, limitations on access, and changes to natural character.*⁶³
- The Board also commented that 'the economic value of surfing to tourism and the social benefits should not be underestimated'.
187. Policy 16 and the schedule of nationally important surf breaks has raised the profile of surf breaks as a significant natural resource. Policy 16 has had some impact on resource consent decisions, including decisions on Port Otago dredging. Without this policy, the impacts on surf breaks would have received less attention.
188. Since gazettal of the NZCPS in 2010, several regional councils have gone on to identify regionally important surf breaks in the second-generation regional coastal plans. However, implementation is generally more advanced at the RPS level than through the detailed implementation of policies and methods in regional coastal plans and district plans.
189. Some councils and industry groups continue to question why surf breaks are identified specifically in the NZCPS 2010 over other areas or ecosystems of national importance.
190. The surfing community noted that some surf breaks around New Zealand are more significant than those listed in the NZCPS 2010. However, there is reluctance to have these identified outside the surfing community due to the tension between protection through regulatory means and protection through 'secrecy'.
191. Methods outside the NZCPS 2010 are being used to protect surf breaks, with Taranaki Regional Council announcing the first surf break reserve on the north Taranaki coast in 2016.
192. The Review found that:
- The precise identification of surf breaks of national importance in the NZCPS 2010 has reduced disputes about their identification and raised their profile as a significant national resource. This has resulted in councils investing in facilities to support the use of surf breaks of national significance.

⁶³ BOI Report and Recommendations to the Minister of Conservation (2009).

Part 1 – Overview and key findings

Policy 17 (Historic heritage identification and protection)

193. Policy 17 seeks to protect historic heritage in the coastal environment from inappropriate subdivision, use and development. The identification and assessment of sites is encouraged along with integrated management between relevant entities. Objective 6 specifically notes that historic heritage in the coastal environment is extensive but not fully known, and is vulnerable to loss or damage.
194. Iwi have strong connections with the coast and climate change effects threaten many sites of cultural significance. Many of these sites have not been identified in plans, although practices vary significantly around New Zealand. The level of trust and the depth of relationship between iwi and councils may be a factor in determining the approach taken.
195. The Review found that:
- Participants in the Review generally did not identify Policy 17 implementation as a particular issue. NZCPS 2010 provisions for historic heritage reinforced, rather than led, good implementation practice.
 - The lack of information on historic heritage in the marine environment is constraining the use of a strategic approach in regional coastal plans. This increases the risk of issues arising at the consent stage after the applicant may have committed significant resources to a project.

Policies 18 (Public open space), 19 (Walking access) and 20 (Vehicle access)

196. New Zealanders have a special relationship with the coast and public access is highly prized. Policies 18–20 focus on recognising the public open space qualities of the coast, and establish requirements to plan for open space, to maintain and enhance public access to and along the coast, and to manage the effect of vehicle use on ecological values and other beach users.
197. The Section 32 report anticipated that these policies would support more strategic planning for coastal open spaces, and that plans and consent conditions would reflect an increased and more consistent provision for public walking access and managing the effects of vehicle use on the coast.
198. Policy implementation has occurred through a strategic approach by many regions and districts using regional policy statements and plans combined with non-RMA tools such as local authority reserve management and public access strategies to promote and encourage public access. This approach is largely unsurprising given the significant proportion of the coastal margin that is in public ownership.
199. Access to the coast is most difficult to control from or across private land. Councils commented that they provide controlled access points to the coastline that help to manage some issues. However, where subdivision occurs, it is difficult to control informal access across the foreshore.

200. Vehicles on beaches is not a high-priority issue for many councils but Policy 20 is recognised as having supported more work on the management of these for those councils that have progressed work in this area. Controls through RMA plans are used in some places. Many councils pointed to local government bylaws as being the appropriate method for implementing this policy in their district. All territorial authorities have extended their boundary to Mean Low Water to enable the management of beaches including the passage of vehicles.
201. Community education programmes on the potential adverse effects of vehicle use together with physical barriers to prevent access to sensitive areas appear to be most effective in controlling vehicle access. However, in some areas there was little appetite to take on the issue, which is often contentious locally.
202. Enforcement is a big issue for councils due to resourcing constraints and concerns for staff safety. Increasing damage to beach access and coastal walkways from coastal hazards was identified as another significant and growing issue.
203. The Review found that:
 - The access and vehicle policies support councils who choose to address the issue through their RMA documents and decision-making, but do not compel all councils to take action or achieve particular outcomes where these issues occur.
 - A number of tools are available to manage these issues and the appropriate way to deal with issues is determined locally.

Part 1 – Overview and key findings

Focus of future work

Supporting strategic and integrated planning

204. The clear interrelationships between the directive policies and the balance of the NZCPS 2010 require careful consideration, particularly in relation to integrated management and strategic planning for use and development. Therefore, any further assessment should focus on strategic and integrated management rather than a particular sector.
205. Better use should be made of non-statutory processes as a catalyst for further work involving iwi and stakeholders, including agencies with different statutory responsibilities, for example by building on strategic spatial planning approaches such as those used in the Hauraki Gulf process.

Directive policies

206. Some participants in the Review considered that the directive policies in the NZCPS 2010 relating to outstanding areas and biodiversity should be reviewed following *King Salmon*. The Review found that any further assessment of the NZCPS 2010 in relation to the directive policies (particularly Policies 13 and 15) should include a detailed audit of on the ground implementation work that has been conducted to date.
207. In relation to Policy 11, it is particularly important that filling information gaps and sharing information between agencies are prioritised.
208. There is wide interest in the directive policies. A stakeholder process could be used to consider sharply contrasting views on these policies, and to explore the potential for consensus.

Responding to uneven implementation

209. In relation to regional and district planning approaches, a more concentrated focus of resources and support in areas where there are particular challenges could be considered (e.g. in Marlborough).
210. The promotion of more direction through region-wide (rather than district by district) identification, mapping and assessment, particularly in relation to the extent and characteristics of the coastal environment, would be beneficial.

Work on implementation guidance and methodologies

211. DOC's guidance to support the NZCPS 2010 should be completed and opportunities to share implementation experiences should be increased. Ways to better support coordinated implementation of the NZCPS 2010 and other national policy statements should also be considered (particularly in relation to the NPS – Freshwater Management and the NPS on Urban Development Capacity).
212. Prioritising work on developing consistent assessment methodologies would be valuable, particularly methods for identifying outstanding natural character, natural landscapes and natural features. Consistent methodologies would also greatly assist with the mapping and identification of the coastal environment, and coastal hazard risk assessments.

Monitoring and reporting

213. An approach to respond to the remaining provisions of Policy 28 needs to be developed, including the gathering of on the ground information and improved monitoring and reporting. This work would also address reporting on the effectiveness of the NZCPS 2010 in achieving the purpose of the RMA, including:
- developing a nationally consistent monitoring and reporting programme (Policy 28(a)); and
 - gathering information that will assist in providing a national perspective on coastal resource management trends, emerging issues and outcomes (Policy 28(b)).

Agenda Memorandum

Date 13 March 2018



**Memorandum to
Chairperson and Members
Policy and Planning Committee**

**Subject: Quarterly monitoring report on urban
development indicators for New Plymouth
District**

Approved by: A D McLay, Director – Resource Management

B G Chamberlain, Chief Executive

Document: 2004874

Purpose

The purpose of this memorandum is to introduce the first Quarterly Monitoring Report on Urban Development Indicators for the New Plymouth District. This report gives effect to one of the required elements of the *National Policy Statement on Urban Development Capacity* (NPS-UDC).

Executive summary

- The NPS-UDC came into force on 1 December 2016. The NPS-UDC includes specific requirements for local authorities in high-growth urban areas to monitor and plan for urban housing and business development capacity.
- Statistics NZ has recently confirmed that New Plymouth is a high-growth urban area.
- In accordance with the NPS-UDC, both this Council and New Plymouth District Council are required to prepare and publish quarterly monitoring reports, three-yearly housing and business development capacity assessments and a future development strategy, and to agree and set minimum targets for sufficient feasible development capacity for housing. Hence a joint approach to meeting the requirements of the NPS-UDC is occurring which recognises that core land use planning and management is the responsibility of New Plymouth District Council.
- Local authorities are strongly encouraged to work together to implement the NPS-UDC. Consequently, the attached Quarterly Monitoring Report has been prepared by New Plymouth District Council on behalf of both councils.
- The attached Quarterly Monitoring Report is the first report of its type. The report monitors and records key indicators of house prices, housing affordability and housing development in the New Plymouth district. The report also includes information on business land and floor space.
- The report's key findings include increased building costs over time. As at March 2016, 72% of first-home buyers in New Plymouth could not comfortably afford a typical first

home.

- Notwithstanding the above, the report notes that housing affordability has improved over the last ten years relative to other (similar) urban areas across New Zealand.
- The report also identifies increasing rents across the New Plymouth district. However, rental affordability has improved over time compared to other urban centres. The report notes that it is currently more affordable to rent in New Plymouth than purchase a home.
- The Quarterly Monitoring Report will inform other planning requirements associated with the implementation of the NPS-UDC this calendar year, including the preparation of three-yearly housing and business development capacity assessments, the setting of minimum targets, and preparation of a regional future development strategy.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum *Quarterly monitoring report on urban development indicators for New Plymouth district*;
2. notes that the Quarterly Monitoring Report has been prepared by the New Plymouth District Council and gives effect to district and regional council requirements under the NPS-UDC; and
3. notes that Council will be working and liaising closely with New Plymouth District Council regarding our mutual responsibilities under the NPS-UDC to monitor and plan for housing and business capacity in the New Plymouth urban area.

Background

Under the *Resource Management Act 1991* (the 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 28 days later (1 December 2016). It requires “local authorities” (i.e. regional, as well as district councils) to monitor and plan for housing and business development capacity in urban environments. Ensuring sufficient “development capacity” also became a matter of national significance pursuant to recent amendments to the RMA.

In June 2017 officers reported on the NPS-UDC to members of the Policy and Planning Committee. As noted at that time, New Plymouth was initially identified as a medium-growth urban area, with a projected population growth of 9.3% between 2013 and 2023. However, at the time, the population projections were about to be reviewed and there were indications that New Plymouth would be re-defined as a “high-growth urban area”¹.

In late 2017, Statistics NZ subsequently reviewed and identified New Plymouth as a high-growth urban area. Consequently, in accordance with the NPS-UDC, this Council and the New Plymouth District Council must undertake additional monitoring and planning to

¹ Which is defined as any urban area that has over 30,000 people, **or** at any point in the year has a combined resident and visitor population of over 30,000, **and** where the projected population growth is more than 10% between 2013 and 2023. Of note, Hawera is defined by Statistics NZ as a “Secondary Urban Area” and does not fit the definition of either a ‘medium-growth urban area’ or a ‘high-growth urban area’

ensure New Plymouth has sufficient housing and business development capacity. In particular, the councils are required to:

- prepare and publish quarterly monitoring reports on urban development activity and price efficiencies in New Plymouth;
- prepare and publish the first three-yearly housing and business development capacity assessment for New Plymouth by the end of June 2018;
- agree and set minimum targets for sufficient feasible development capacity for housing in New Plymouth by the end of December 2018; and
- prepare and publish a future development strategy which demonstrates there will be sufficient, feasible urban development capacity in the medium (3 and 10 years) and long term (10 and 30 years), by the end of December 2018.

This Council and the New Plymouth District Council are interested in a joint approach to implement the four NPS-UDC deliverables. The joint approach to meeting the requirements of the NPS-UDC recognises that core land use planning and management is the responsibility of New Plymouth District Council.

Regional and district planners have also discussed the implementation of the NPS-UDC and noted there can be wider inter-district implications (e.g. housing pressure in New Plymouth could result in increased demands in Stratford district) and there was a need to carefully monitor the situation and communicate effectively.

The first deliverable – the Quarterly Monitoring Report on Urban Development Indicators for the New Plymouth District - has now been prepared and is attached separate to this Agenda. Outlined in the remainder of the memorandum is a summary of that report's key findings.

Quarterly monitoring report

The attached report has been prepared by the New Plymouth District Council on behalf of both councils. It gives effect to the NPS-UDC monitoring requirements that require local authorities to be well informed about urban development activity and outcomes.

The report predicts ongoing high population growth in the New Plymouth district. Population predictions in the report are for New Plymouth to grow from an estimated 83,400 in 2018 to 92,400 in 2028, and to 106,100 by 2048. This equates to 27.2% growth.

The report then summarises monitoring information on a range of housing and business indicators for the New Plymouth district. These indicators cover the fourth quarter of 2017² and cover:

- housing prices, including change over time;
- rentals for housing, residential land and business land, by location and type, including change over time;
- housing and rental affordability, which is based on how much household income is left after housing and rental costs are accounted for;
- provision of new houses, i.e. the number of resource consents and building consents

² Where the latest data is available, otherwise for earlier periods.

- granted for urban development relative to the growth of population;
- employment and growth; and
- supply of business space.

For each indicator, New Plymouth District Council has expressed the data graphically, along with an explanation on what the indicator shows, and the identified source for the data. For the first quarterly report, the data for each indicator is from 2007 to 2016 or June 2017.

The Ministry for Business and Innovation (MBIE) has provided some of the data through its online Urban Development Capacity Dashboard. MBIE is trialling the use of a national affordability benchmark developed in 2013, which is the amount of income the median New Zealand household had after paying for their housing costs in June 2013. The 2013 national affordability benchmark is residual income of \$662 per week for a one-person household, plus \$331 per additional adult and \$199 per child.³

Key findings from the report are as follows:

- *Housing*: New Plymouth district has experienced an increase in house price over the short to medium term but average house price have remained consistently lower when compared with other 'high' growth areas such as Whangarei and Nelson. The increase over ten years averages out to 3.4 per cent per annum.
- *Land value* as a percentage of capital value has been slowly increasing over the past nine years. The higher ratio indicates that land is more valuable relative to the buildings that occupy it. This increase is less than a one per cent increase per annum.
- *Build cost*: The average build cost in the New Plymouth district, over the past ten years, has increased an average of around 3.6 per cent per annum. This is lower than the other three comparative medium to high growth districts.
- *Residential Rents*: Residential rents have increased over the past ten years, on average around 2.8 per cent per annum. The overall increase in rent is less than that of house prices. The report writer states that rents are expected to continue to increase in the long term.
- *Housing affordability* has improved over the last ten years by 11.2%. This is due to a combination of low interest rates, wage growth and slower house prices inflation helping to improve buyer affordability. While the improvement in housing affordability is positive, the level remains high. For example at March 2016, 72% of first-home buyers in New Plymouth could not comfortably afford a typical 'first-home' priced house.
- *Rental affordability*: Even though the cost of rent has increased, rental affordability has improved overall in New Plymouth. This is because the rental increase over time has been fairly small and lower than that of house sale prices and other affordability factors, such as wage growth and other housing costs.
- *Residential subdivision consents*: The number of residential subdivision applications over the previous ten years has varied slightly with a drop during the 2011-2013 period. One of the more obvious changes in the short term is the increase in larger lot subdivision (>10 estimated lots). The number of applications with more than two lots will help with affordability and house price sales as it makes building a new house more accessible.

³ The benchmark was calculated using data from Statistics New Zealand's Household Economic Survey, and is adjusted for inflation. 2013 was chosen as the base year as it was a Census year. The national affordability benchmark will be rebased periodically.

- *Employment and growth:* Over the medium term New Plymouth district has seen a growth in the business sector but a recent drop in the oil and gas industry is believed to have caused a decrease in employment and growth in the short term.
- *GDP per capita indicator* is of interest because it provides an understanding of changes in average income, which is a key factor in the housing affordability measures. The nominal GDP in New Plymouth district has improved significantly over the long term but there has been a slight drop recently (though New Plymouth still remains ahead of the national average).
- *Industrial zoned land:* The data for this indicator is still being constructed, however, New Plymouth had a substantial amount of vacant industrial land available in 2015 and this has not changed significantly over the past two years.

As previously noted, this report is the first of its type. Its findings will inform the three-yearly Housing and Business Development Capacity Assessments which will forecast demand and “feasible” development capacity, and the likely take-up of capacity.

The NPS-UDC encourages councils to publish their NPS-UDC monitoring results. Accordingly a copy of the attached and future reports will be maintained on the Council’s website.

Other work

Council officers will continue to work and liaise closely with New Plymouth District Council regarding our mutual responsibilities under the NPS-UDC to monitor and plan for housing and business capacity in the New Plymouth urban area. In particular, over the course of the calendar year, both councils will be involved in the development of:

The Housing and Business Capability Assessment (the HBA): Using information provided by the first and second quarterly reports, this assessment will estimate demand for dwellings, for business land and floor area, and for development capacity to meet housing and business demand. As part of the assessment, the HBA will also identify how the development capacity has been provided for in district and regional plans, and regional policy statements under the RMA, and long term plans (LTPs) and infrastructure strategies prepared under the Local Government Act (LGA). Development of the HBA will include consultation with key stakeholders.⁴ It is anticipated that the first HBA report will be prepared by New Plymouth District Council by the end of June 2018.

Minimum targets: Based upon the monitoring data both councils are required to identify and set minimum targets for housing and incorporate these targets into the Regional Policy Statement and district plan. Minimum targets are due to be agreed between both councils by the end of December 2018.

The Future Development Strategy (the FDS): The strategy will describe how the region will provide sufficient feasible development capacity in the medium and long-term across the urban area, and how the minimum targets can be met in the future. The FDS will identify the broad location, timing and sequencing of development capacity and any intensification opportunities. The strategy is informed by the other NPS deliverables – the quarterly monitoring report, the HBA, and the minimum targets – as well as regional LTPs,

⁴ Including Iwi authorities, property development sector, significant land owners, and social housing providers.

infrastructure strategies, and plans, and government policy and direction instruments. Development of the FDS also requires a consultation process that complies either with Part 6 of the LGA or Schedule 1 of the RMA. It is anticipated that the FDS will be prepared by the Taranaki Regional Council by the end of December 2018.

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

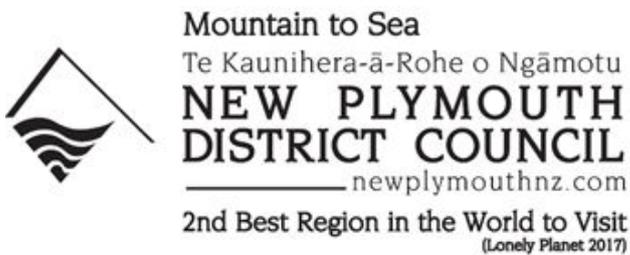
This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement 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 #2017100: Finalised version NPS-UDC Quarterly Report 1 - Dec 17.



Contents

Executive Summary.....	4
Introduction	4
Purpose of this Quarterly Report.....	4
First Quarterly Report	5
New Plymouth District	5
New Plymouth District Population Growth	6
Residential Indicators.....	6
Residential Indicators Group 1: Housing	6
Indicator 1: Price for housing-dwelling sale price (actual)	6
Indicator 2: Dwellings sold	7
Indicator 3: Land value as percentage of capital value.....	8
Indicator 4: Number of residential building consents	9
Indicator 5 –Average Floor Size per Residential Building	10
Indicator 6: Average value per residential building dwelling consent.....	11
Summary Group 1: Housing	11
Residential Indicators Group 2: Residential rents	12
Indicator 7: Dwelling Rents	12
Indicator 8: Rentals per dwelling type New Plymouth	12
Indicator 9: Ratio of dwelling sales prices to rent	13
Summary Group 2: Rent Indicators.....	13
Residential Indicator Group 3: Affordability	14
Indicator 10: Housing Affordability Measure (HAM) - Buy	14
Indicator 11: Housing Affordability Measure (HAM) – Rents	15
Summary Group 3: Indicators	15
Residential Indicator Group 4: Provision of new houses.....	16
Indicator 12: Urban subdivision consents – approved and the number of lots created	16
Indicator 13: New dwellings compared to household growth	17
Indicator 14: Dwelling stock.....	18
Summary Group 4: Indicators	Error! Bookmark not defined.
Business Indicators.....	18
Business Indicators Group 1: Employment and growth	18
Indicator 1: Employment current economy and recent past.....	19
Indicator 2: Nominal GDP per capita	20
Summary Group 1: Indicators	20
Business Indicators Group 2: Supply of business space.....	21

Indicator 3: Industrial vacant land by location (commercial land still under development).....	21
Indicator 4: Capacity within existing and new built facilities – retail	21
Indicator 5: Capacity within existing and new built facilities – industrial.....	22
Indicator 6: Capacity within existing and new built facilities – commercial/office	22
Indicator 7: Commercial consents per square metre	22
Summary Group 2: Indicators	22
Future Quarterly Reports.....	23

Executive Summary

This report provides an overview of New Plymouth housing market using a selection of indicators. It is designed to meet the government's National Policy Statement on Urban Development Capacity (NPS-UDC) monitoring requirements that require local authorities to be well informed about urban development activity and outcomes. This is achieved through the use of indicators on house prices, housing affordability and housing development. The report also includes information on business land and floor space.

Summary of findings:

- We are expected to be a medium-high population growth district.
- Residential Indicator Group 1: In general all the indicators in this group have increased with the exception of the housing affordability measure. This leads us to believe that while the cost of building or buying your first home has increased, it is less than the rate of affordability.
- Residential Indicator Group 2: Rent has increased but the rate of affordability has decreased, therefore renting has become more affordable in the past ten years.
- Residential Indicator Group 3: The increase in subdivision available lots and number of residential consents has naturally given rise to an increase in the number of dwellings.
- Business Indicator Group 1: Over the medium term we have seen growth in the business section but a recent drop in the oil and gas industry has seen a decrease in the short term.
- Business Indicator Group 2: To be developed.

Introduction

The NPS-UDC was introduced by the Ministry for the Environment in 2016 and requires the Council to assess housing and business demand and capacity across the district. They have newly defined New Plymouth District Council as high growth (i.e. projected to grow by more than 10 per cent from 2013 to 2023).

As a result, the NPS-UDC requires the relevant councils to provide sufficient development capacity to meet demand over a 30-year period, including 15 to 20 per cent additional development capacity to ensure there is competition in the housing and business markets. Affordable housing is important for people's well-being. For lower income households, high housing costs can leave households with insufficient income to meet other basic needs. Expenditure on housing is a major component of household spending and a key factor in the assessment of housing affordability

To determine the required level of development capacity to meet the population growth in the district, the NPS-UDC requires high and medium growth local authorities to:

- Prepare housing and business development capacity assessment on at least a three-yearly basis which forecast demand and "feasible" development capacity, and the likely take-up of capacity (Policies PB1 to PB5) – due June 2018.
- Undertake quarterly monitoring of market indicators, and use indicators of price efficiency (Policies PB6 and PB7).

Purpose of this Quarterly Report

The purpose of this report is to fulfil the requirements of Policy PB6 in the NPS-UDC. The report seeks to ensure that the Council and Taranaki Regional Council are well informed about demand for housing and business development capacity, urban development activity and outcomes in the New Plymouth

urban area. The report summaries monitoring information on a range of indicators on a quarterly basis, including:

- prices and rents for housing, residential land and business land, by location and type; and the changes in these prices and rents over time;
- the number of resource consents and building consents granted for urban development relative to the growth in population;
- indicators of housing affordability; and
- business indicators.

The quarterly monitoring reports will provide some of the evidence required to develop the three-yearly Housing and Business Development Capacity Assessments. We have included some other locations as comparisons to help understand the general trends around New Zealand. We decided on these locations as they are of similar size and growth as New Plymouth District.

First Quarterly Report

The first quarterly report contains the residential and business indicators. The residential baseline indicators are comprised of four groups. These are:

- Housing.
- Rentals.
- Housing affordability.
- Provision of new houses.

The business baseline indicators are comprised of two groups. These are:

- Employment and growth.
- Supply of business space.

The indicators are presented in groups to help better identify and understand trends, which will assist in developing an overall picture on what each indicator could mean for New Plymouth District. For each indicator, the data is shown in a graphical format along with an explanation on what the indicator shows and the identified source for the data. For the first quarterly report, the data for each indicator is from 2007 to 2016 or June 2017.

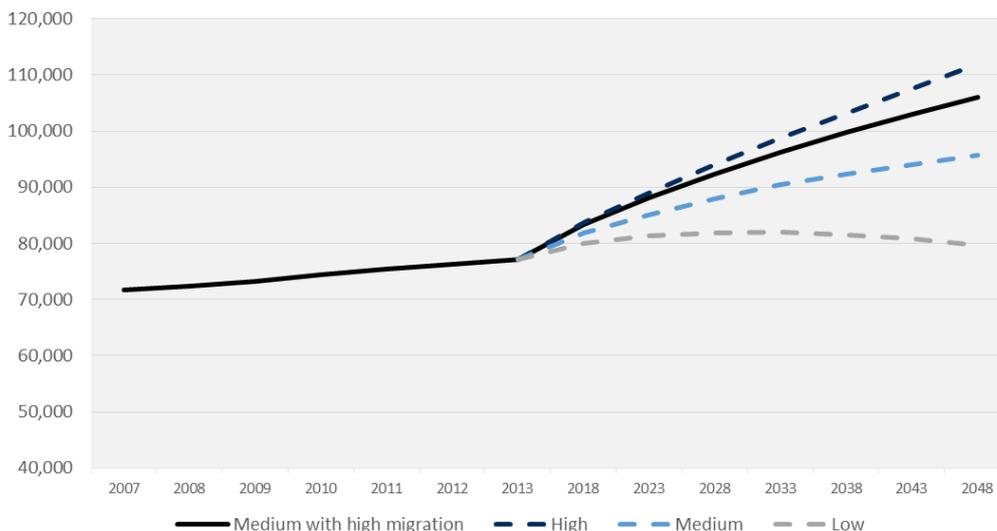
New Plymouth District

The New Plymouth District is situated in the wider Taranaki region and covers an area of 2,205 square kilometres, including both rural and urban areas. One of the resource management issues facing the district is planning for growth and development, whilst ensuring that the needs of the community are met and adverse effects on the environment are avoided, remedied or mitigated.

All of the indicators are currently reflecting the wider New Plymouth District area but with future development we intend to develop the data to be able to report on urban areas and specific suburbs.

It is predicted that there will be high population growth in the New Plymouth District over the next ten years. The population is projected to grow from an estimated 83,400 in 2018 to 92,400 in 2028, and to 106,100 by 2048. This equates to growth of 22,700 (27.2 per cent) people who will have a wide range of social, housing, environmental and economic requisites.

New Plymouth District Population Growth



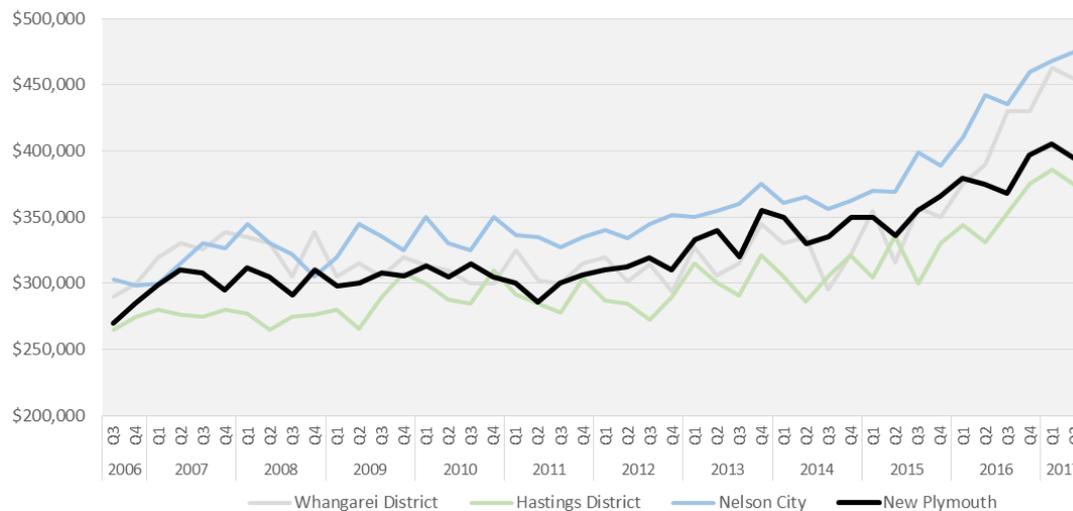
Source: Statistics New Zealand

Residential Indicators

This summary collates information sourced from MfE, the MBIE UDC Dashboard and Statistics NZ which provides available information on residential trends on supply and demand, and has been supplemented by specific local authority specific measures of housing capacity.

Residential Indicators Group 1: Housing

Indicator 1: Price for housing-dwelling sale price (actual)



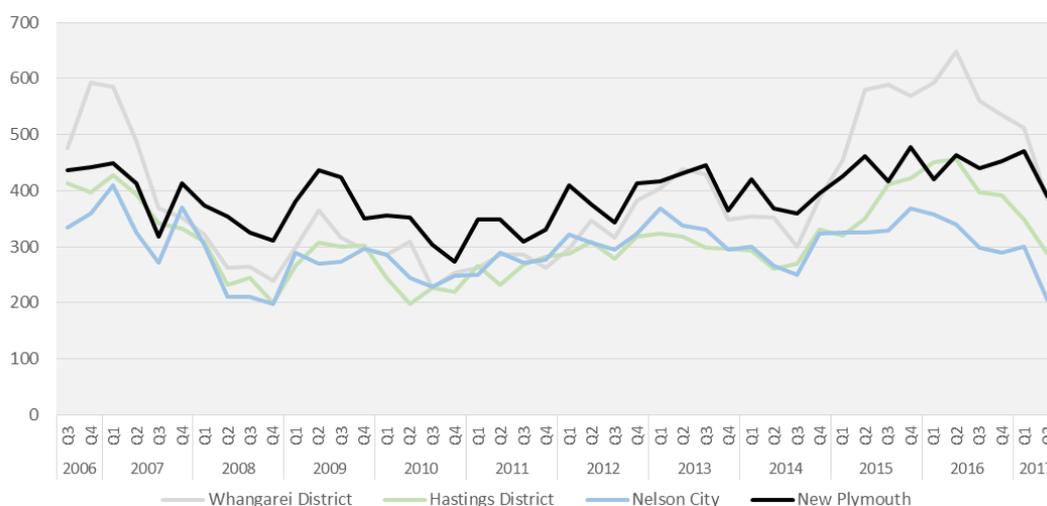
Source: MBIE Urban Development Capacity Dashboard, October 2017

Observations

	2006/07	2013/14	2016/17	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
Sale Price					
New Plymouth	\$291,000	\$339,000	\$391,000	15% ↑	34% ↑
Whangarei	\$310,000	\$331,300	\$444,400	34% ↑	43% ↑
Hastings	\$274,000	\$300,900	\$372,000	24% ↑	36% ↑
Nelson	\$304,000	\$365,300	\$459,400	26% ↑	51% ↑

We have seen an increase in house price over the short to medium term but if we compare this with other 'high' growth areas such as Whangarei and Nelson, our average house price has remained consistently lower. The increase over the ten years averages out to 3.4 per cent per annum. Sale prices for different types of dwellings will be included as part of Indicator 1 for future quarterly reporting.

Indicator 2: Dwellings sold



Source: MBIE Urban Development Capacity Dashboard, October 2017

Observations

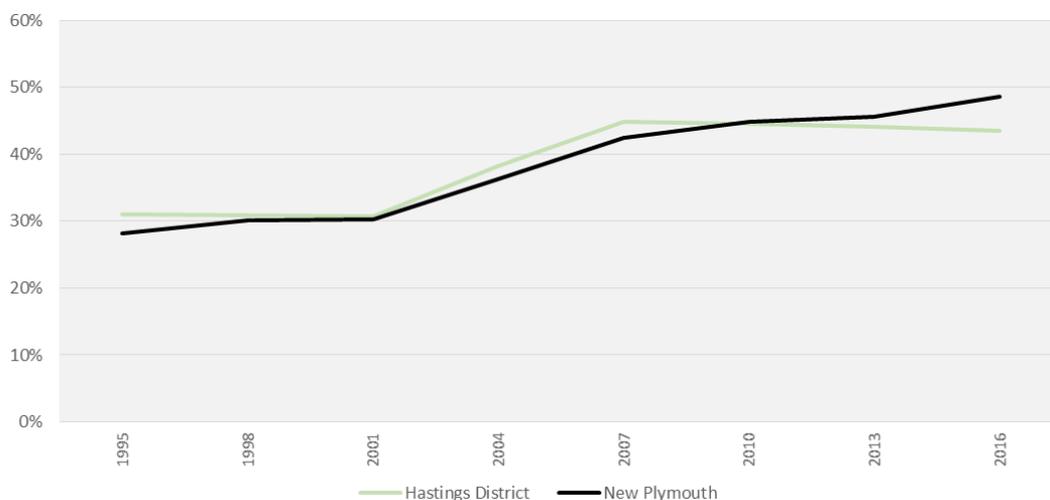
Dwellings Sold	2006/07	2013/14	2016/17	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
New Plymouth	1,740	1,600	1,750	10% ↑	1% ↑
Whangarei	2,140	1,490	1,990	34% ↑	-7% ↓
Hastings	1,630	1,150	1,430	24% ↑	-12% ↓
Nelson	1,430	1,190	1,090	-8% ↓	-24% ↓

On average 395 dwellings per quarter or 1,580 per annum have been sold in New Plymouth since 2006. The number of sales has remained in the 300-500 bracket over the past ten years and no obvious spikes have occurred. The number of sales consistently drop in the fourth quarter of each year which is common in the property market due to the festive season.

Indicator 2 relates to Indicator 1 and the equilibrium between supply and demand of housing in these areas. Generally, the number of dwellings traded in the housing market tends to be positively related

to the changes in prices. For example if we see decreasing or stagnant house prices, the number of dwellings traded tends to decrease. Future quarterly reports will monitor supply and demand to ensure we are aware of any trends that might affect the district and future urban capacity.

Indicator 3: Land value as percentage of capital value



Source: MBIE Urban Development Capacity Dashboard, October 2017

Data is provided on a three-yearly basis, when revaluations occur via Quotable Value. Data is only available for Hastings as a comparison.

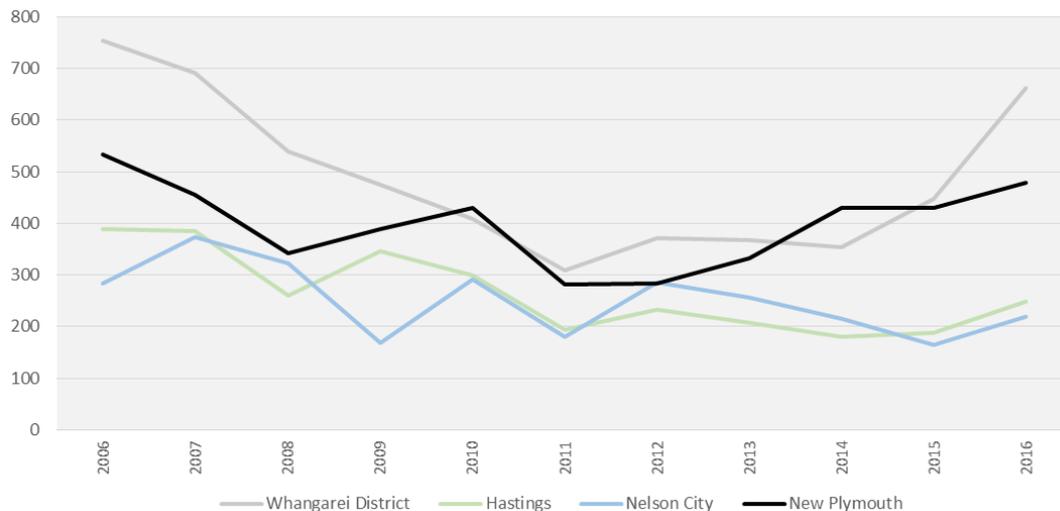
This indicator shows the share of house values that are estimated to be related to land prices at each valuation period. A higher ratio indicates that land is more valuable relative to the buildings that occupy it.

Observations

LV % CV	2007	2013	2016	Short Term % Change (2013-2016)	Medium Term % Change (2006-2016)
New Plymouth	43%	46%	49%	3% ↑	6% ↑
Hastings	45%	44%	44%	0% ↑	-1% ↓

Land value as a percentage of capital value has been slowly increasing over the past nine years. The higher ratio indicates that land is more valuable relative to the buildings that occupy it. This is less than a one per cent increase per annum. To fully understand this increase we need to look further into our current housing stock; their age, land area and type. We plan to include this work in future quarterly reports. The increase is not due to decreasing building costs or house sizes as seen in indicators 5 and 6.

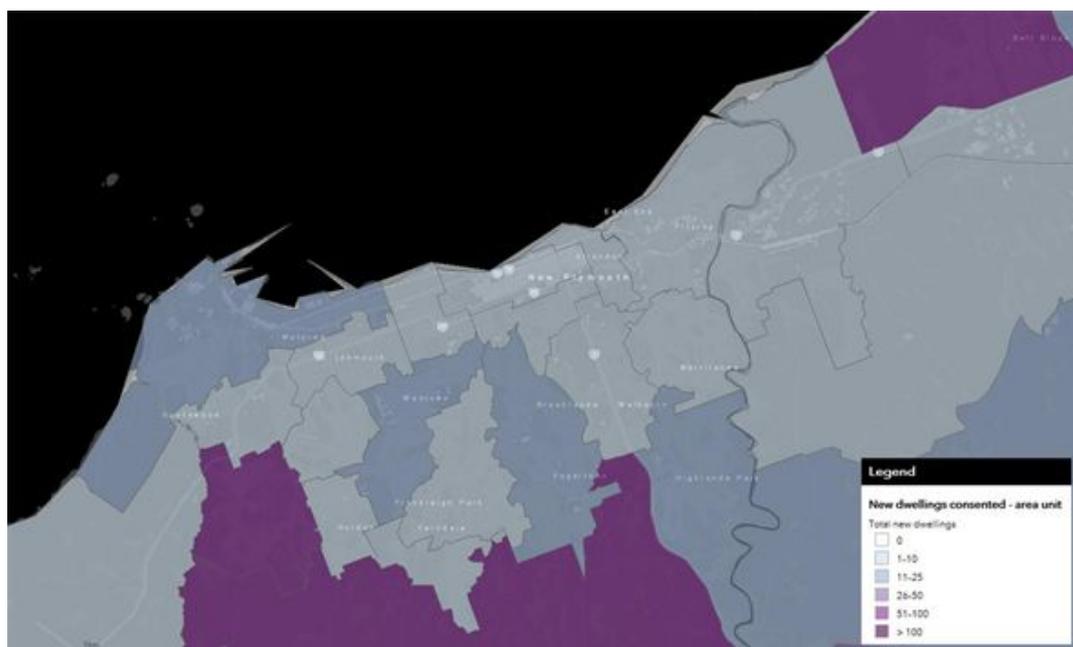
Indicator 4: Number of residential building consents



Source: Statistics NZ (InfoShare), October 2017

The number of consents for residential dwellings (classified as dwellings, houses, apartments, townhouses, units and others, retirement villages, flats, units and other dwellings) constructed in a calendar year can be determined up to 2016.

New dwellings consented in the year ended June 2017



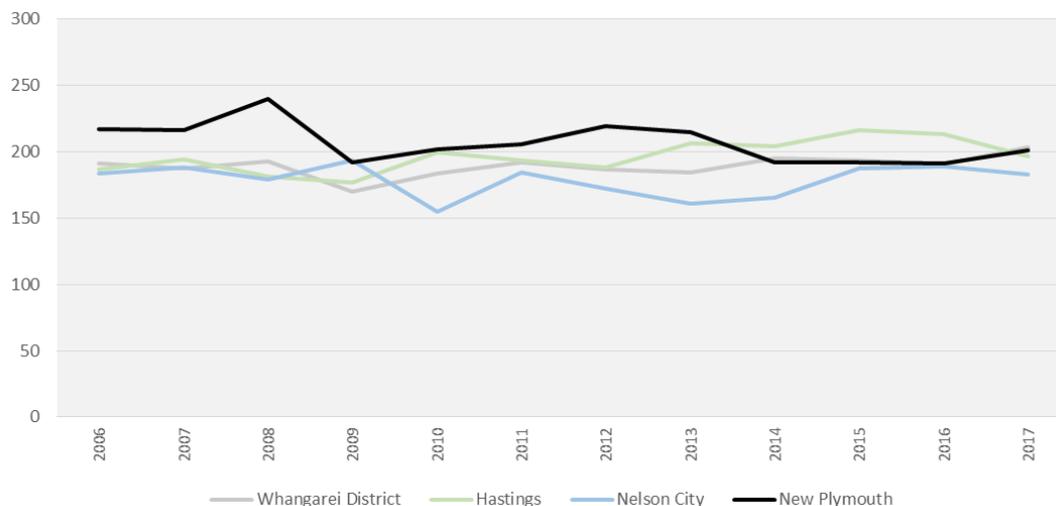
Source: Statistics NZ (InfoShare), October 2017

Observations

Build Consents	2006/07	2013/14	2016/17	Short Term % Change (2013-2016)	Medium Term % Change (2006-2016)
New Plymouth	466	383	486	27% ↑	4% ↑
Whangarei	786	349	686	97% ↑	-13% ↓
Hastings	408	182	272	49% ↑	-33% ↓
Nelson	425	214	257	20% ↑	-40% ↓

The number of consents dropped briefly during 2011/2012 but has increased again in the past five years. We have previously received 400+ consents since 2014, according to the Long Term Plan (LTP) we predict 387 houses to be built per annum in the next five years and 353 houses per annum in the following five years. However according to the NPS-UDC, our planning provides infrastructure and land supply for 464 new houses to be built per annum from 2018-2023, and 424 new houses per annum from 2023-2028.

Indicator 5 –Average Floor Size per Residential Building



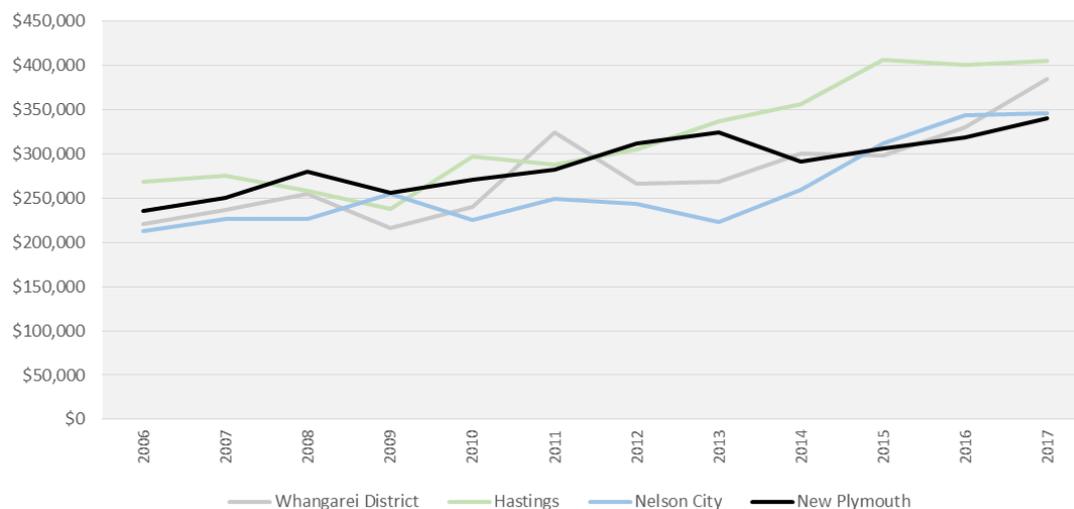
Source: Statistics NZ (InfoShare), October 2017

Observations

Average Floor Size	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
New Plymouth	216m ²	192m ²	201m ²	4.5% ↑	-7% ↓
Whangarei	187m ²	195m ²	203m ²	4.3% ↑	8.4% ↑
Hastings	194m ²	204m ²	197m ²	-3.6% ↓	1.3% ↑
Nelson	188m ²	165m ²	183m ²	10.7% ↑	-2.9% ↓

The average house size has remained consistently around 200m² in the last ten years, factors such as building costs, section size and growth has had little effect on the type of house being built.

Indicator 6: Average value per residential building dwelling consent



Source: Statistics NZ (InfoShare), October 2017

Observations

Average Build Cost \$	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
New Plymouth	\$250,000	\$292,000	\$340,000	17% ↑	36% ↑
Whangarei	\$237,000	\$300,000	\$385,000	28% ↑	67% ↑
Hastings	\$276,000	\$357,000	\$406,000	14% ↑	47% ↑
Nelson	\$226,000	\$260,000	\$346,000	33% ↑	53% ↑

The average build cost over the past ten years has increased, an average of around 3.6 per cent per annum. The average build cost for our district is lower than the other four comparative high to medium growth districts.

Summary Group 1: Housing

	Short Term % Change	Medium Term % Change
1. Dwelling sales price	↑	↑
2. Dwellings sold	↑	↑
3. LV % CV	↑	↑
4. Number of Consents	↑	↓
5. Average floor size	↑	↑
6. Average value	↑	↑

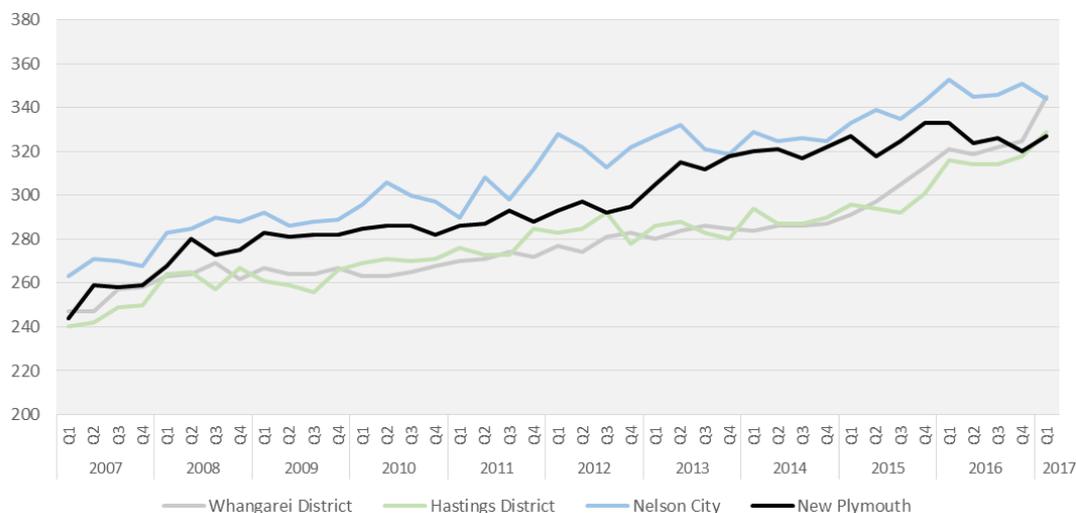
In future quarterly reports we hope to include additional data sources which will help us understand more about the housing market.

The housing group helps give us some understanding on what is happening with the property market and enables us to recognise any major trends and how they could be influenced by growth and development. All indicators except consent applications have increased, the cost of building or buying a home in New Plymouth has become more expensive. The largest increases are in dwelling sale price and building cost but as affordability has decreased (see below, Indicator 10) we believe these are

within an acceptable limit. Overall an increase in these indicators is expected and we will continue to monitor using this quarterly report.

Residential Indicators Group 2: Residential rents

Indicator 7: Dwelling Rents



Source: MBIE Urban Development Capacity Dashboard, October 2017

Observations

Average Rent	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
New Plymouth	\$255	\$320	\$327	2% ↑	28% ↑
Whangarei	\$252	\$286	\$345	21% ↑	37% ↑
Hastings	\$245	\$290	\$329	14% ↑	34% ↑
Nelson	\$268	\$326	\$344	5% ↑	28% ↑

Rents have increased over the past ten years, on average around 2.8 per cent per annum, the overall increase in rent is less than that of house prices. We expect rent to continue to increase in the long term.

Indicator 8: Rentals per dwelling type New Plymouth

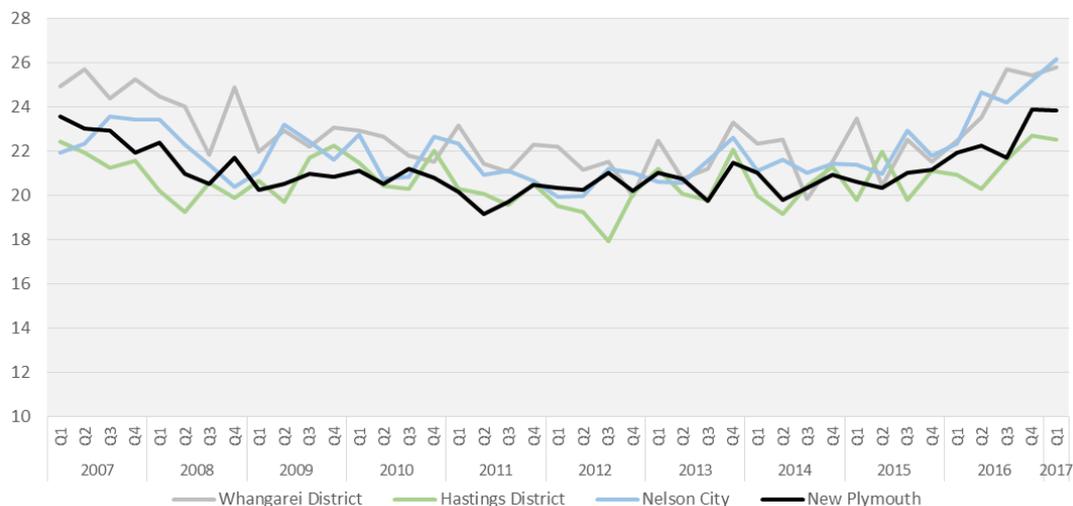
	Suburb	Bonds Received	Lower Quartile	Median Rent	Upper Quartile
One bedroom	Central	38	\$220	\$237	\$253
	Outer	67	\$212	\$243	\$272
Two bedrooms	Central	118	\$274	\$304	\$322
	Outer	211	\$282	\$304	\$334
	Rural	7	\$282	\$300	\$307
Three bedrooms	Central	112	\$340	\$360	\$390
	Outer	275	\$349	\$380	\$401
	Rural	32	\$277	\$335	\$380
Four bedrooms	Central	27	\$365	\$420	\$476
	Outer	65	\$425	\$480	\$568
	Rural	8	\$240	\$340	\$375

	Suburb	Bonds Received	Lower Quartile	Median Rent	Upper Quartile
Five+ bedrooms	Outer	8	\$427	\$455	\$487

Source Tenancy New Zealand – Market Rent Data, August 2017

Only a limited data range was available. We will continue to monitor the ongoing trends as more data becomes available in future quarterly reports.

Indicator 9: Ratio of dwelling sales prices to rent



Source: MBIE Urban Development Capacity Dashboard, October 2017

Observations

Ratio of dwelling sales prices to rent	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
New Plymouth	23.6	21.0	23.8	13.2 ↑	1.1 ↑
Whangarei	24.9	22.3	25.8	15.5 ↑	3.6 ↑
Hastings	22.4	20.0	22.5	12.9 ↑	0.4 ↑
Nelson	21.9	21.1	26.1	23.9 ↑	19.2 ↑

This indicator shows, a ratio of 23.8 which indicates that the price of a median house is 23.8 times the mean annual rent paid. This ratio hasn't changed over the previous ten years. We can see from the indicators above that while the average sale price has increased so has the average mean rent. This indicator illustrates that it is currently more affordable to rent in New Plymouth than purchase a home.

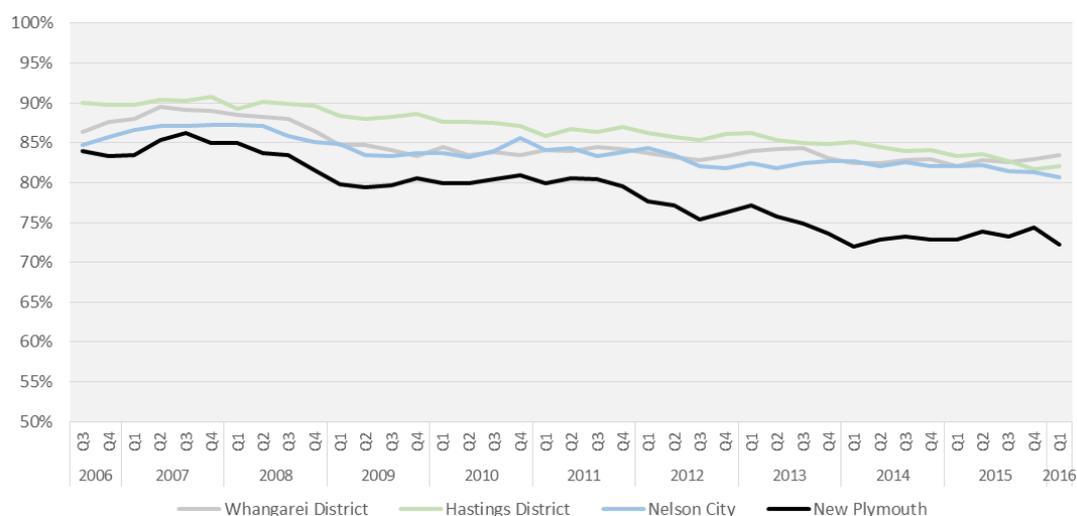
Summary Group 2: Rent Indicators

	Short Term % Change	Medium Term % Change
7. Dwelling rents	↑	↑
8. Rentals per dwelling type	To be developed	
9. Ratio of dwelling sale prices to rent	↑	↑

Over the last ten years rent and the ratio of dwelling sale prices to rent has increased. The rental increase has followed a similar pattern of house sale prices but at a slower rate.

Residential Indicator Group 3: Affordability

Indicator 10: Housing Affordability Measure (HAM) - Buy



Source: MBIE Urban Development Capacity Dashboard, October 2017

HAM indicators provide a picture of housing affordability trends, bringing together the impact of changes in house prices or rents, mortgage interest rates and incomes. For potential home-owning households, HAM Buy calculates what their residual income would be after housing costs if they were to buy a modest first home in the area in which they currently live.

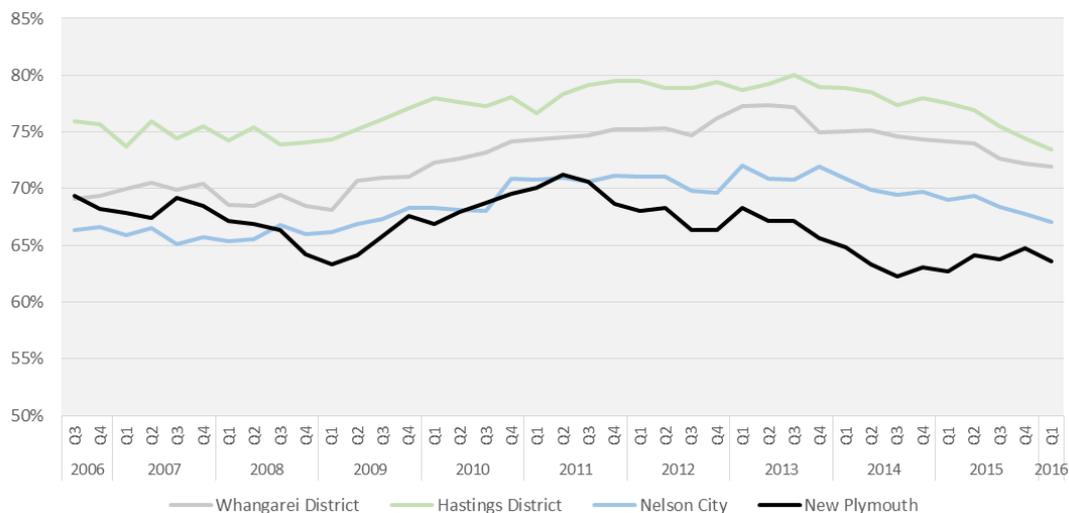
Data for this indicator is only available up to 2016 quarter one. Indicator is published with a one-year lag and hence does not pick up recent trends.

Observations

HAM - Buy	2006	2013	2016	Short Term % Change (2013-2016)	Medium Term % Change (2006-2016)
New Plymouth	84%	74%	72%	1.4% ↓	11.2% ↓
Whangarei	86%	84%	83%	-1% ↓	-3% ↓
Hastings	90%	86%	82%	-5% ↓	-9% ↓
Nelson	82%	82%	81%	-2% ↓	-2% ↓

According to the MBIE HAM Buy indicator, housing affordability has been improving over the past ten years. This is due to a combination of low interest rates, wage growth and slower house prices inflation, helping improved buyer affordability. While the improvement in housing affordability is positive, the level remains high. For example at March 2016, 72 per cent of first-home buyers in New Plymouth could not comfortably afford a typical 'first-home' priced house.

Indicator 11: Housing Affordability Measure (HAM) – Rents



Source: MBIE Urban Development Capacity Dashboard, October 2017

Observations

HAM - Rent	2006	2013	2016	Short Term % Change (2013-2016)	Medium Term % Change (2006-2016)
New Plymouth	70%	68%	64%	-7% ↓	-9% ↓
Whangarei	70%	77%	72%	-7% ↓	3% ↑
Hastings	75%	79%	73%	-7% ↓	-2% ↓
Nelson	64%	72%	67%	-7% ↓	4% ↑

Even though the cost of rent has increased as we can see above, rental affordability has improved. This is because the rental increase is fairly small and lower than that of house sale prices and other affordability factors, such as wage growth and other housing costs. Over the last ten years rent has increased but at an acceptable level as the rate of affordability has decreased. As mentioned above the housing affordability measure for renting is lower than that of buying, therefore it is currently more affordable to rent in New Plymouth than purchasing a home.

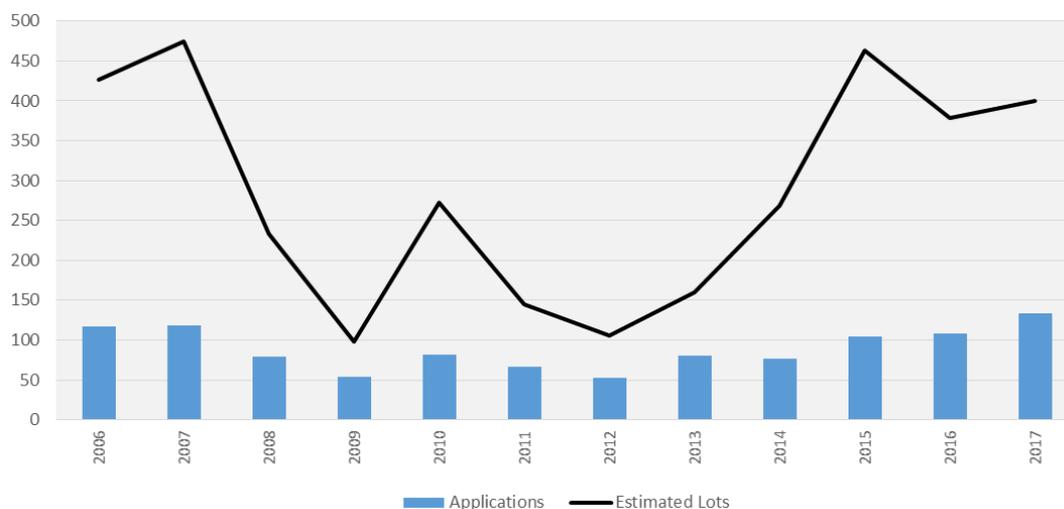
Summary Group 3: Indicators

	Short Term % Change	Medium Term % Change
10. HAM - Buy	↓	↓
11. HAM - Rent	↓	↓

In summary both housing affordability measures have dropped in the short and medium term. The improvement in affordability would largely be due to a decline in mortgage interest rates and any increases in household income, as we know both house sale price and rent have increased.

Residential Indicator Group 4: Provision of new houses

Indicator 12: Residential subdivision consents – approved and the number of lots created



Source: NPDC Data, October 2017

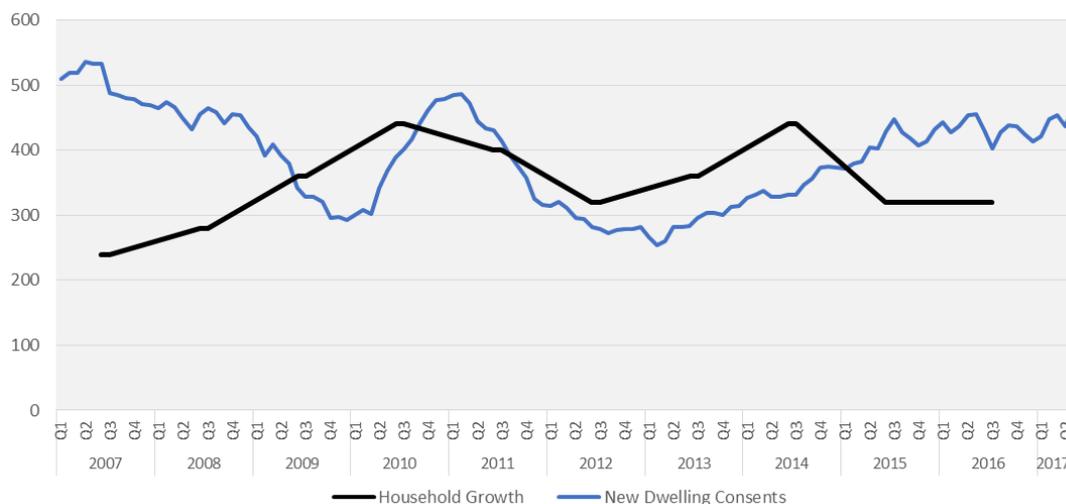
Notes: This data will be refined in future reports.

Observations

	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
Applications	118	77	134	74% ↑	14% ↑
Estimated number of lots	474	269	400	49% ↑	-16% ↓

The number of residential subdivision applications over the previous ten years has varied slightly with a drop during the 2011-2013 period. One of the more obvious changes in the short term is the increase in larger lot subdivision (>10 estimated lots). The number of applications with more than two lots will help with affordability and house price sales as it makes the building a new house more accessible.

Indicator 13: New dwellings compared to household growth



Source: MBIE Urban Development Capacity Dashboard. October 2017

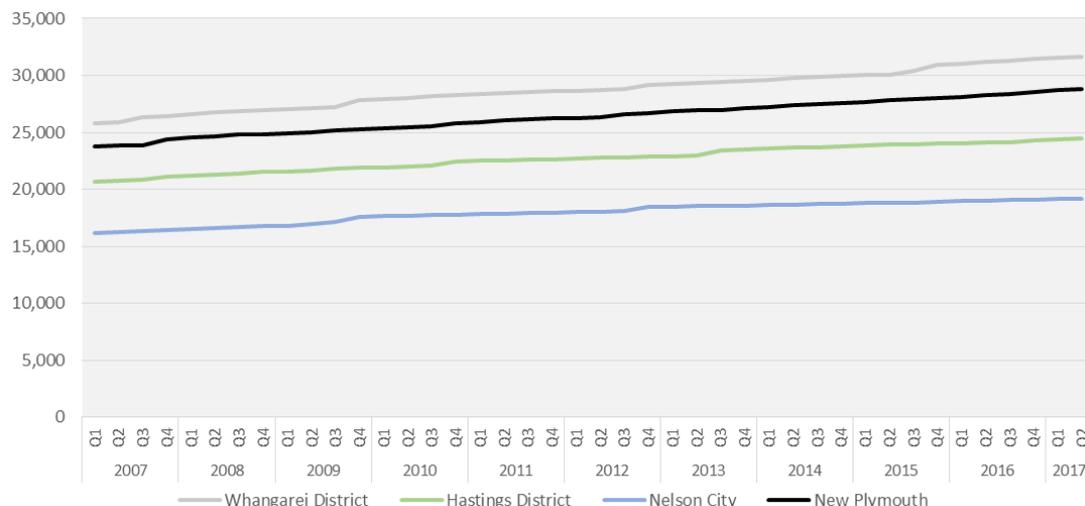
The number of new dwelling building consents is lagged by six months, to account for the time taken from consenting to completion, as recommended by MBIE.

Observations

	2007	2014	2016	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
Household growth	240	440	320	-27% ↓	33% ↑
New consents	533	332	430	30% ↑	-19% ↓
% Comparison	45%	133%	74%		

Generally over the past ten years New Plymouth District household growth and new residential dwellings have been consistently on par. During the period from 2012 to 2014 household growth was above consented dwelling (133 per cent) which could have had an effect on the increase in residential sale price and building costs. The number of residential consents has caught up over the past two years which should assist in maintaining reasonable sale price and the affordability of buying a home.

Indicator 14: Dwelling stock



Source: MBIE Urban Development Capacity Dashboard, October 2017

Observations

Dwelling stock	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
New Plymouth	23,800	27,400	28,800	5% ↑	21% ↑
Whangarei	25,900	29,800	31,700	6% ↑	22% ↑
Hastings	20,800	23,600	24,400	4% ↑	18% ↑
Nelson	16,200	18,700	19,200	3% ↑	18% ↑

The housing stock has increased in New Plymouth District alongside increase in population. The increase has been consistent over the past ten years with no major spikes to indicate a dramatic change in housing stock.

Business Indicators

This summary collates information sourced from freely available information on business trends on supply and demand, and specific local authority specific measures of business capacity.

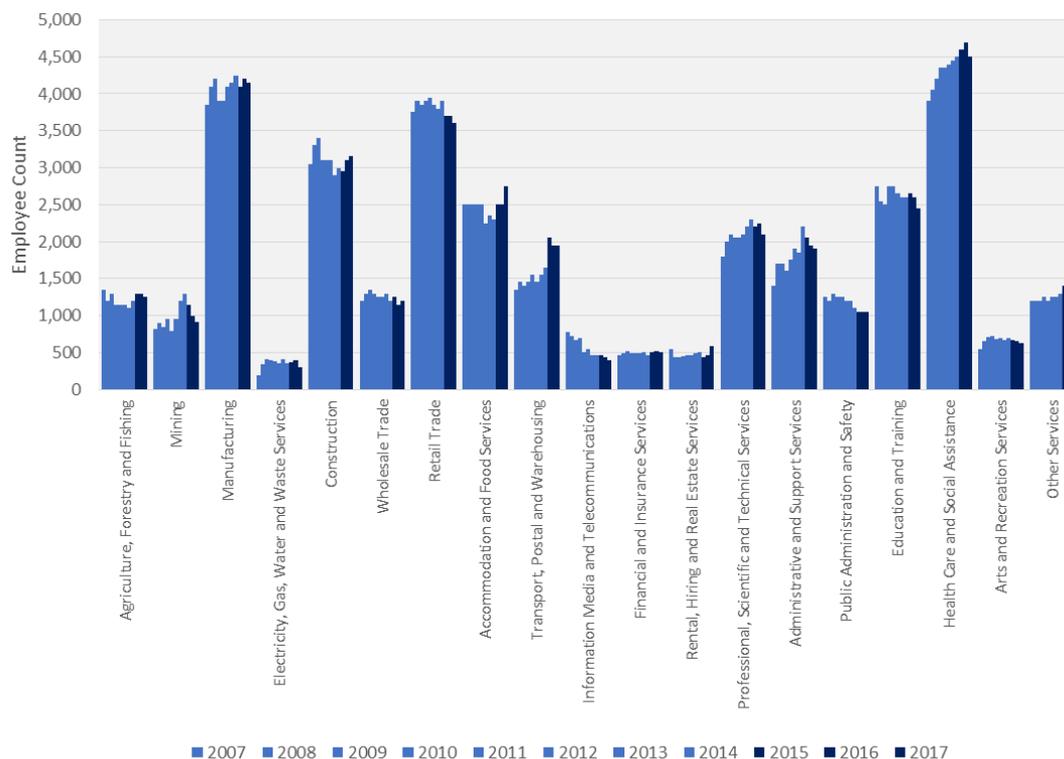
Summary Group 4: Indicators

	Short Term % Change	Medium Term % Change
12. Subdivision consents	↑	↓
13. Growth v. consents	No trend available	
14. Dwelling stock	↑	↑

The increase in available subdivided lots and number of residential consents has correspondingly given rise to an increase in the number of dwellings. The level of change is evident in the positive changes in both Group 1 and Group 2 Indicators for housing provision.

Business Indicators Group 1: Employment and growth

Indicator 1: Employment current economy and recent past



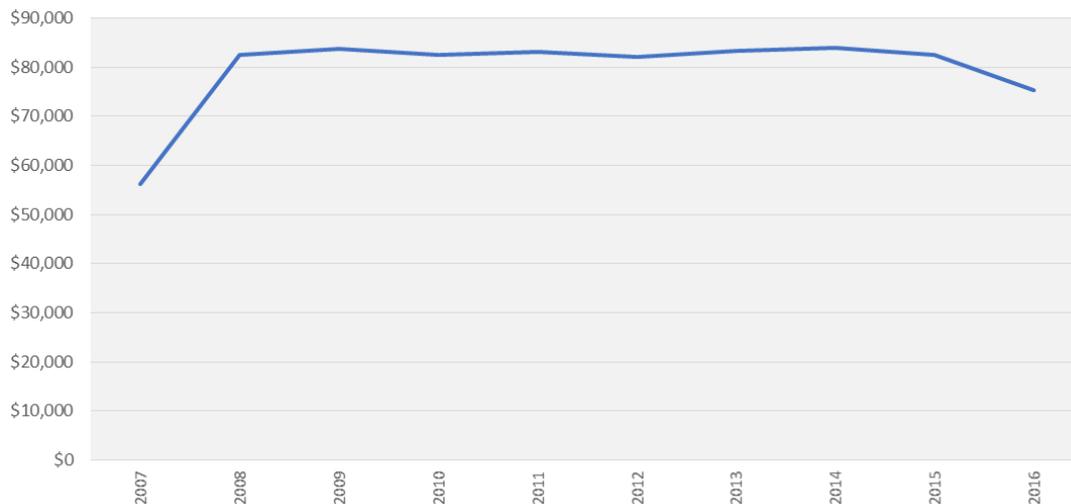
Source: Statistics New Zealand, October 2017

Observations

Employment Growth	2007	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2007-2017)
Agriculture	1,350	1,200	1,250	4% ↑	-7% ↓
Retail	3,750	3,900	3,600	-8% ↓	-4% ↓
Healthcare	3,900	4,500	4,500	0% ↑	15% ↑
Construction	3,050	3,000	3,150	5% ↑	3% ↑

In the short term we have seen growth in all areas except for retail, with the biggest growth in the healthcare industry. The growth in healthcare is due to additional rest home, retirement village facilities being constructed in the past few years.

Indicator 2: Nominal GDP per capita



Source: MBIE Regional Economic Activity Web Tool, October 2017

Notes The GDP per capita indicator is of interest because it provides an understanding of changes in average income, which is a key factor in the housing affordability measures.

Observations

	2006	2013	2016	Short Term % Change (2013-2016)	Medium Term % Change (2006-2016)
GDP per capita	\$46,997	\$83,217	\$75,222	-10% ↓	60% ↑

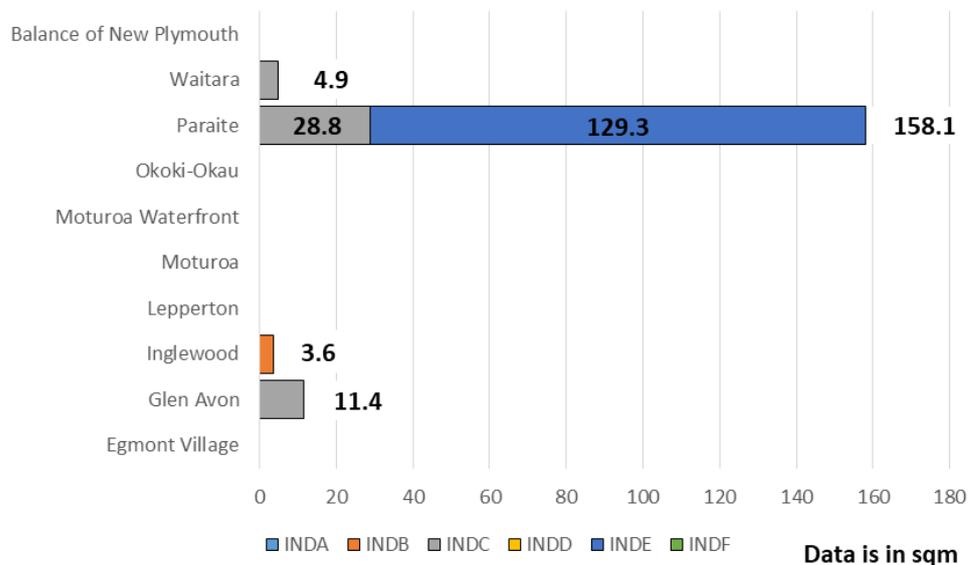
Nominal GDP has improved significantly over the long term but there is a slight drop in the short term. Even though we have seen a drop in recent GDP we still remain ahead of the national average.

Summary Group 1: Indicators

	Short Term % Change	Medium Term % Change
1. Employee current economy and recent past	↓	↑
2. GDP per capita	↓	↑

Business Indicators Group 2: Supply of business space

Indicator 3: Industrial vacant land by location (commercial land still under development)



Source: Property Economics, NPDC July 2016

This indicator is still under construction, we are still developing data for commercially zoned vacant land and will include this in future quarterly reports. We had a substantial amount of vacant industrial zoned land available for industrial activities in 2015 and this has not changed significantly over the past two years.

Indicator 4: Capacity within existing and new built facilities – retail

Retail Classifications	Store #	GFA #	Store %	GFA %
Supermarket retailing	7	23,950	1%	15%
Food retailing	53	10,290	11%	6%
Clothing, footwear and personal accessories	65	12,140	14%	8%
Furniture, floor coverings, houseware and textile goods retailing	31	21,390	7%	13%
Electrical and electronic goods	7	4,690	1%	3%
Pharmaceutical and personal goods retailing	13	2,040	3%	1%
Department stores	4	26,640	1%	17%
Recreational goods retailing	22	9,470	5%	6%
Other goods retailing	75	16,050	16%	10%
Food and beverage services	168	25,560	35%	16%
Vacant	31	7,040	7%	4%
Total	476	159,260	100%	100%

Source: Property Economics, NPDC July 2016

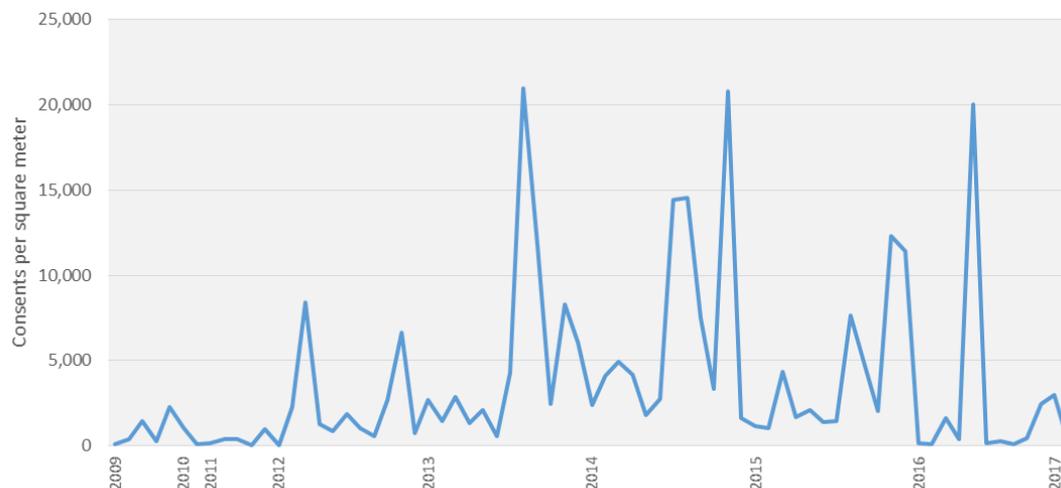
Current ‘vacant’ levels are sub-optimal, totalling 31 stores or seven per cent of the total retail market by store count. A high prevalence of vacant sores fails to attract shoppers in the quantities that are

required to sustain the level of gross floor area provided. A more acceptable level of retail store vacancy from an economic retail perspective in a thriving commercial centre is five per cent.

Indicator 5: Capacity within existing and new built facilities – industrial
Under construction

Indicator 6: Capacity within existing and new built facilities – commercial/office
Under construction

Indicator 7: Commercial consents per square metre



Source: NPDC Data, October 2017

Observations

	2009	2014	2017	Short Term % Change (2014-2017)	Medium Term % Change (2009-2017)
Commercial consents per square metre	910	6,869	1,570	-77% ↓	72% ↑

There has been an increase in commercial consents during the period from 2014/2015, which has dropped slightly during the first part of 2017. Once we get some more information on available vacant commercial data we will be able to piece more of the puzzle together.

Summary Group 2: Indicators

	Short Term % Change	Medium Term % Change
3. Industrial vacant land		N/A
4. Retail capacity		N/A
5. Industrial capacity		N/A
6. Commercial/office capacity		N/A
7. Commercial consents per square metre	↓	↑

Once we have developed the datasets in future quarterly reports we will be able to expand more on these indicators.

Future Quarterly Reports

The Council is committed to improving this document over time. There is some information required by the NPS-UDC that has not yet been collected; this includes the following indicators:

- Residential Indicator 1: Include sale prices for different types of dwellings.
- Residential Indicator 4: Current housing stock, by age, land area and type.
- Residential Indicator 8: Dwellings rents -Include graph with time-series data.
- Residential Indicator 12: Subdivision consents – data refinement.
- Business Indicator 3: Future work is required on this indicator.
- Business Indicator 4: Addition of commercial vacant land needed.
- Business Indicator 5: To be developed. Challenge sourcing data.
- Business Indicator : To be developed. Challenge sourcing data.

For this first quarterly report, we have identified challenges in securing data sources for the above indicators. We will focus on addressing this issue for future quarterly reports.

NPS-UDC have reviewed this initial document and felt it met the requirements for a first draft and understood that future work would be done in subsequent reports.

Policy and Planning Committee Public Excluded

In accordance with section 48(1) of the *Local Government Official Information and Meetings Act 1987*, resolves that the public is excluded from the following part of the proceedings of the Policy and Planning Committee Meeting on Tuesday 13 March 2018 for the following reason/s:

Item 10- Confirmation of Confidential Minutes

THAT the public conduct of the whole or the relevant part of the proceedings would be likely to result in the disclosure of information where the withholding of the information is necessary to protect information, where the making available of the information would be likely to prejudice the supply of similar information, or information from the same source, and it is in the public interest that such information continue to be supplied.

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 whiti whakamaua kia	Let there be certainty
tina	Secure it!
Tina! Hui e! Taiki e!	Draw together! Affirm!