



AGENDA

Policy & Planning

Tuesday 9 June 2020, 10.30am



Date: Tuesday 9 June 2020, 10.30am

Venue: Taranaki Regional Council chambers, 47 Cloten Road, Stratford

Members	Councillor C L Littlewood	(Committee Chairperson)
	Councillor N W Walker	(Committee Deputy Chairperson)
	Councillor M G Davey	
	Councillor M J McDonald	
	Councillor D H McIntyre	
	Councillor C S Williamson	
	Councillor E D Van Der Leden	
	Councillor D N MacLeod	(ex officio)
	Councillor M P Joyce	(ex officio)
	Representative Members	Councillor S Hitchcock
Councillor G Boyde		(SDC)
Councillor C Young		(STDC)
Mr P Muir		(Federated Farmers)
Ms L Tester		(Iwi representative)
Ms B Bigham		(Iwi representative)
Mr P Moeahu		(Iwi representative)

Apologies

Notification of Late Items

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		Closing Karakia and Karakia for kai



Purpose of Policy and Planning Committee meeting

This committee attends to all matters of resource management, biosecurity and related environment policy.

Responsibilities

Prepare and review regional policy statements, plans and strategies and convene as a Hearing Committee as and when required for the hearing of submissions.

Monitor plan and policy implementation.

Develop biosecurity policy.

Advocate, as appropriate, for the Taranaki region.

Other policy initiatives.

Endorse submissions prepared in response to the policy initiatives of organisations.

Membership of Policy and Planning Committee

Councillor C L Littlewood (Chairperson)	Councillor N W Walker (Deputy Chairperson)
Councillor M G Davey	Councillor M J McDonald
Councillor D H McIntyre	Councillor C S Williamson
Councillor E D Van Der Leden	Councillor D N MacLeod (ex officio)
Councillor M P Joyce (ex officio)	
Representative Members	
Councillor C Young (STDC)	Councillor S Hitchcock (NPDC)
Councillor G Boyde (SDC)	Mr P Moeahu (Iwi Representative)
Ms B Bigham (Iwi Representative)	Ms L Tester (Iwi Representative)

Health and Safety Message

Emergency Procedure

In the event of an emergency, please exit through the emergency door in the committee room by the kitchen.

If you require assistance to exit please see a staff member.

Once you reach the bottom of the stairs make your way to the assembly point at the birdcage. Staff will guide you to an alternative route if necessary.

Earthquake

If there is an earthquake - drop, cover and hold where possible.

Please remain where you are until further instruction is given.



Date 9 June 2020

Subject: **Minutes**

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

Document: 2513389

Resolves

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

- a) receives the confirmed minutes of the Policy and Planning Committee meeting held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford on Tuesday 4 February 2020 at 10.30am
- b) receives the confirmed minutes of the Ordinary meeting of the Taranaki Regional Council held via audio-visual link (zoom) on Tuesday 7 April 2020 at 10.30am
- c) receives the unconfirmed minutes of the Ordinary meeting of the Taranaki Regional Council held via audio-visual link (zoom) on Tuesday 19 May 2020 at 10.30am.

Background

1. Due to advice from Government around gatherings during the COVID-19 pandemic the Policy and Planning meeting scheduled for Tuesday 17 March 2020 was cancelled.
2. In March 2020 the World Health Organisation declared a worldwide novel coronavirus (COVID-19) pandemic. The New Zealand Government declared a series of alert levels aimed at moving fast and moving hard that essentially put New Zealand in a lockdown situation from 26 March 2020 in an effort to prevent widespread outbreaks of the disease.
3. On Wednesday 25 March 2020, the Emergency Ordinary meeting passed the following resolution:

Resolved:

THAT the Taranaki Regional Council:

- a) receives the memorandum *Governance and Decision-making During Covid-19 Pandemic*
- b) agrees to make delegations to the Chief Executive to make urgent decisions during the Covid-19 pandemic as set out in Attachment 1 after due consultation with the Chairperson, Deputy Chairperson and Committee Chairpersons and with reporting back on the exercise of those delegations

- c) *agrees that if local government legislation is amended in relation to quorums at audio-visual meetings, the delegations will be revoked with the Council meeting as a "Committee of the Whole" using audio-visual means and Committee meetings suspended until after the Epidemic Preparedness (COVID-19) Notice 2020 expires.*
4. The Policy and Planning Committee minutes of Tuesday 4 February 2020 were therefore, confirmed at the Whole of Committee Ordinary meeting on Tuesday 7 April.
5. Agenda items from the cancelled meeting of Tuesday 17 February 2020 were either received by the Ordinary Committee on Tuesday 7 April or Tuesday 19 May 2020 or were held over for the return of the usual meetings and committee structure.

Decision-making considerations

6. 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

7. 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

8. 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

9. 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

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

Appendices/Attachments

Document 2418293: Minutes - Policy and Planning Committee Meeting - 4 February 2020

Document 2466927: Minutes - Ordinary Committee Meeting - 7 April 2020

Document 2500502: Minutes - Ordinary Committee Meeting - 19 May 2020



Date 4 February 2020, 10.30am
Venue: Taranaki Regional Council chambers, 47 Cloten Road, Stratford
Document: 2418293

Members	Councillors	C L Littlewood N W Walker M G Davey M J McDonald D H McIntyre C S Williamson E D Van Der Leden M P Joyce	Committee Chairperson Committee Deputy Chairperson ex officio
Representative Members	Councillors	C Young S Hitchcock G Boyde	South Taranaki District Council New Plymouth District Council Stratford District Council
	Mr	P Muir	Federated Farmers
		Iwi representatives have not yet been appointed.	
Attending	Messrs	B G Chamberlain G K Bedford M J Nield A D McLay S R Hall G Severinsen C Spurdle S Tamarapa M Simpson T McElroy R Ritchie P Ledingham T K Davey	Chief Executive Director - Environment Quality Director - Corporate Services Director - Resource Management Director - Operations Manager Policy and Strategy Planning Manager Iwi Communications Officer Team Leader - Riparian Environmental Scientist – Marine Biology Communications Manager Communications Adviser Communications Adviser (<i>part meeting</i>)
	Ms	L Ingham	Environmental Scientist – State of the Environment
	Ms	M Lachmann	Communications Adviser
	Mrs	V McKay	Science Manager Chemistry
	Miss	L Davidson	Committee Administrator
	Mr	S Cronin	University of Waikato
	Councillor	D L Lean	

One member of the media and one member of the public.

Apologies An apology from Councillor D N MacLeod was received and sustained.

Notification of Late Items There were no late items.

1. Confirmation of Minutes - Tuesday 19 November 2019

Resolved

THAT the Policy and Planning Committee of the Taranaki Regional Council

- a) takes as read and confirms the minutes of the Policy and Planning Committee meeting of Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford of Tuesday 19 November 2019 at 10.30am
- b) notes the recommendations therein were adopted by the Taranaki Regional Council on Tuesday 10 December 2019.

McIntyre/Boyde

Matters arising

There were no matters arising.

2. National Survey of Pesticides and Emerging Organic Contaminants (EOCs) in Groundwater 2018

- 2.1 Mr G K Bedford, Director - Environment Quality, spoke to the report to present the results of the National Survey of Pesticides and Emerging Organic contaminants (EOCs) in Groundwater 2018, in which the Taranaki Regional Council participated, and to discuss their significance and answered questions arising.

Recommended

THAT the Taranaki Regional Council

- a) receives the memorandum *National Survey of Pesticides and Emerging Contaminants in Groundwater 2018*
- b) notes the results of the survey, that pesticides are virtually undetectable in the Taranaki groundwater or when present, are far below levels of concern for either environmental or human health
- c) notes the detection of various EOCs in groundwater in Taranaki (and nationally) and that officers will continue to closely monitor research development in this evolving field of water quality science.

McDonald/Van Der Leden

3. Pesticides in Surface Water Survey

- 3.1 Mr G K Bedford, Director – Environment Quality, spoke to the report to present the results, together with a discussion of their significance, of a survey undertaken by Council officers in order to determine whether there is any consequent environmental or human health issue due to pesticides in surface waters in Taranaki and answered questions arising.

Recommended

THAT the Taranaki Regional Council

- a) receives the memorandum *Pesticides in surface water in Taranaki*
- b) notes the results of the survey, that pesticides are virtually undetectable in the surface waters of Taranaki, or when present, are far below levels of concern for either environmental or human health
- c) notes that these findings will inform the provisions of the next *Regional Land and Water Plan for Taranaki*.

McIntyre/Joyce

4. Summary of Freshwater Improvement Fund (FIF) project ‘Transforming Taranaki’ for Year 1 (2018-19)

- 4.1 Mr S Hall, Director Operations, introduced Mr M Simpson, Land Management Acting Team Leader – Riparian, who spoke to the report to update Members on the progress of the freshwater improvement fund project ‘transforming Taranaki’, following completion of year one of this project, and an update on the riparian programme with reference to the development of the approaching auditing regime.

Recommended

THAT the Taranaki Regional Council:

- a) receives this memorandum Summary of the Freshwater Improvement Fund Project ‘Transforming Taranaki’ for Year 1 (2018-19)
- b) notes the approach to delivery and progress made to date.

Williamson/McDonald

5. Update on Proposed Coastal Plan for Taranaki: Appeals

- 5.1 Mr C Spurdle, Planning Manager, spoke to the memorandum to update Members on appeals lodged with the Environment Court on the Proposed Coastal Plan for Taranaki (the Proposed Plan) and answered questions arising.

Recommended

THAT the Taranaki Regional Council:

- a) receives this memorandum entitled *Update on Proposed Coastal Plan for Taranaki: Appeals*
- b) notes that ten appeals to the Proposed Coastal Plan have been lodged with the Environment Court.

Williamson/Walker

6. Taranaki Estuarine Vulnerability Assessment – Consultant report

- 6.1 Mr G Bedford, Director – Environment Quality, introduced Mr T McElroy, Environmental Scientist – Marine Biology, who gave a presentation to the report produced by Dr Ben Robertson (Robertson Environmental Ltd.), Taranaki Regional Estuaries - Ecological Vulnerability Assessment. The report has been prepared to provide baseline information on the region's estuaries and to inform monitoring priorities for the Council's State of the Environment Estuaries Monitoring Programme.

Recommended

THAT the Taranaki Regional Council:

- a) receives the report *Taranaki Regional Estuaries – Ecological Vulnerability Assessment*
- b) notes the results of EVA
- c) notes that the recommendations within the report will be used to inform an ongoing State of the Environment Estuaries Monitoring Programme.

Young/Boyde

7. Review of Navigation Bylaws for Port Taranaki and its Approaches

- 7.1 Mr C Spurdle, Planning Manager, spoke to the report seeking Members' agreement to commence a review of the Navigation Bylaws for Port Taranaki and its Approaches 2009 in accordance with the requirements of the Local Government Act 2002 (LGA).
- 7.2 Chairperson C L Littlewood, declared an interest in the item relating to Port Taranaki.

Recommended

THAT the Taranaki Regional Council:

- a) receives this memorandum entitled *Review of the Navigation Bylaws for Port Taranaki and its Approaches*
- b) notes that the Council is required by the LGA to commence a review of the *Navigation Bylaws for Port Taranaki and its Approaches 2009* in the 2019/2020 financial year

- c) agrees that the Council proceed to commence a review of the existing *Navigation and Safety Bylaws for Port Taranaki and its Approaches 2003* in accordance with the attached project brief
- d) agrees to restrict the scope of the review to areas where the risk is greatest (i.e. within the area of Port Taranaki and its approaches).

Joyce/Boyde

8. Draft National Policy Statement for Indigenous Biodiversity

- 8.1 Mr C Spurdle, Planning Manager, Spoke to the memorandum to introduce for Members' consideration a draft submission on the consultation document for a National Policy Statement for Indigenous Biodiversity (NPS-IB).

Recommended

THAT the Taranaki Regional Council:

- a) receives this memorandum entitled *Draft National Policy Statement for Indigenous Biodiversity*
- b) adopts the submission with any changes recommended by the Committee.

Walker/Young

9. Transitioning Taranaki to a Volcanic Future – a research programme

- 9.1 Mr G K Bedford, Director – Environment Quality, introduced Mr S Cronin, Professor of Geology/Volcanology at University of Waikato, who gave a presentation to the memorandum concerning a major collaborative research project to be undertaken within and concerning Taranaki over the next few years. The project is to explore and evaluate the consequences and implications for Taranaki and for New Zealand of ongoing volcanic activity from Mt Taranaki.

Recommended

THAT the Taranaki Regional Council:

- a) receives the memorandum describing the research programme '*Transitioning Taranaki to a volcanic future*'
- b) notes the engagement of the Council as a participant in the research programme.

Littlewood/Walker

Closing Karakia Mr S Tamarapa, Iwi Communications Officer, gave the closing Karakia to the Policy and Planning Committee and Karakia for Kai.

There being no further business, the committee Chairperson, Councillor C L Littlewood, declared the meeting of the Policy and Planning Committee closed at 12noon.

Confirmed

**Policy and Planning
Chairperson:** _____

C L Littlewood

Tuesday 9 June 2020



Date 7 April 2020, 10.30am
 Venue: Meeting held via audio-visual conferencing (Zoom)
 Document: 2466927

Present Councillors D N MacLeod (Chairperson)
 M P Joyce (Deputy Chairperson)
 M J Cloke
 M G Davey
 D L Lean *arrived 10.40am*
 C L Littlewood
 M J McDonald
 D H McIntyre
 E D Van Der Leden
 N W Walker
 C S Williamson

Attending Messrs B G Chamberlain (Chief Executive)
 S R Hall (Director – Operations)
 M J Nield (Director – Corporate Services)
 G K Bedford (Director – Environment Quality) *Part meeting*
 A D McLay (Director – Resource Management)
 R Phipps (Science Manager Hydrology / Biology)
 B Pope (Compliance Manager)
 C McLellan (Consents Manager) *Part meeting*
 P Ledingham (Communications Advisor)
 T K Davey (Communications Advisor) *Part Meeting*
 Ms J Mack (Administrator Manager)
 Miss L Davidson (Committee Administrator)

Apologies An apology from Councillor D L Lean for lateness was received and sustained.

Notification of Late Items Annual Plan and rates to be discussed under general business.

1. Confirmation of Minutes – 25 February 2020

Resolves

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes and resolutions of the Ordinary Meeting of the Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Tuesday 25 February 2020 at 10.30am.

McIntyre/Cloke

Matters arising

There were no matters arising.

2. Confirmation of Emergency Ordinary Minutes – 25 March 2020

Resolves

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes and resolutions of the Emergency Ordinary Meeting of the Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Thursday 25 March 2020 at 1pm.

Walker/McDonald

Matters arising

There were no matters arising.

3. Confirmation of Consents and Regulatory Committee Minutes – 4 February 2020

Resolves

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes of the Consents and Regulatory Committee meeting of the Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Tuesday 4 February 2020 at 9.30am.
- b) notes the recommendations therein were adopted on Tuesday 25 February 2020.

Williamson/Davey

Matters arising

There were no matters arising.

4. Confirmation of Policy and Planning Committee Minutes – 4 February 2020

Resolves

That the Taranaki Regional Council:

- a) 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 4 February 2020 at 10.30am.
- b) notes the recommendations therein were adopted on Tuesday 25 February 2020.

Littlewood/Walker

Matters arising

There were no matters arising.

5. Confirmation of Executive, Audit and Risk Committee Minutes – 17 February 2020

Resolves

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes of the Executive, Audit and Risk Committee meeting of the Taranaki Regional Council held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Monday 17 February 2020 at 10.00am.
- b) notes the recommendations there in were adopted on Tuesday 25 February.

MacLeod/Walker

Matters arising

- 5.1 An update was provided on Public Passenger Transport through Covid-19 Level four lockdown.

6. Joint Committee Minutes

Resolves

That the Taranaki Regional Council:

- a) receives the unconfirmed minutes of the Taranaki Solid Waste Management Committee Meeting held on Thursday 20 February 2020
- b) receives the unconfirmed minutes of the Taranaki Civil Defence Emergency Management Group Joint Committee meeting held on Tuesday 3 March 2020.

Walker/MacLeod

7. Meeting Dates for April and May 2020

- 7.1 The meeting dates for April and May 2020 were received.
- 7.2 It was noted that due to the Covid-19 lockdown, committee meetings are provisional at this stage. The ordinary meeting for Tuesday 19 May 2020 will go ahead.

8. Consents Monitoring Annual Reports

- 8.1 Mr R Phipps, Science Manager Hydrology/Biology, spoke to the memorandum to advise Members of the 26 tailored compliance monitoring reports that have been prepared since the last committee meeting and answered questions arising.
- 8.2 Councillor D H McIntyre declared an interest in Ravensdown, Fonterra and Trust Power reports.

Recommended

That the Taranaki Regional Council:

- a) receives the 19-12 McKechnie Aluminium Solutions Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- b) receives the 19-17 Lower Waiwhakaiho Catchment Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- c) receives the 19-29 Lepper D H Trust Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- d) receives the 19-31 Fonterra Whareroa Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- e) receives the 19-39 Todd Energy McKee Production Station Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- f) receives the 19-41 STDC Combined Kaponga, Manaia, Patea and Waverley WWTP Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- g) receives the 19-51 Fonterra Kapuni Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- h) receives the 19-55 Greymouth Petroleum Northern Sites Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- i) receives the 19-64 Nova Energy McKee Power Plant Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- j) receives the 19-65 Trustpower Mangorei HEP Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- k) receives the 19-66 Trustpower Motukawa HEP Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- l) receives the 19-71 Lower Waiwhakaiho Air Discharges Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;

- m) receives the 19-73 CD Boyd Drilling Waste and Stockpiling Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- n) receives the 19-77 Trustpower Ltd Patea HEP Scheme Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- o) receives the 19-78 Taranaki By-Products Ltd Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- p) receives the 19-79 STDC Eltham Central Landfill Baseline Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- q) receives the 19-81 Contact Energy Ltd Stratford Power Station Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- r) receives the 19-82 Vector Kapuni GTP Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- s) receives the 19-85 South Taranaki District Council HWWTP Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- t) receives the 19-87 Regional Cleanfill Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- u) receives the 19-88 Concrete Batching Plants Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- v) receives the 19-89 ANZCO Eltham Ltd Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- w) receives the 19-90 Silver Fern Farms Waitotara Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- x) receives the 19-91 Waverley Sawmills Ltd Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- y) receives the 19-92 Civil Quarries Ltd - Everett Road Quarry Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;
- z) receives the 19-93 GSNZ SPV1 Ltd Ahuroa B Gas Storage Facility Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein;

Lean/Joyce

9. Incident, Compliance Monitoring, Non-compliances and Enforcement Summary - 17 January to 26 February 2020

- 9.1 Mr B Pope, Compliance Manager, spoke to the memorandum to consider and receive the summary of the incidents, compliance monitoring, non-compliances and enforcement for the period 17 January 2020 to 26 February 2020 and answered questions arising.

- 9.2 Councillor C L Littlewood declared an interest in Port Taranaki and noted that she has started a new role with Venture Taranaki managing the 2050 Roadmap for Taranaki.
- 9.3 Councillor D N MacLeod also declared an interest in Port Taranaki.

Recommended

That the Taranaki Regional Council:

- a) receives this memorandum
- b) receives the summary of the incidents, compliance monitoring, non-compliances and enforcement for the period from 17 January 2020 to 26 February 2020, notes the action taken by staff acting under delegated authority and adopts the recommendations therein.

Lean/Williamson

10. Resource Consents Issued Under Delegated Authority and Applications in Progress

- 10.1 Mr A D McLay, Director – Resource Management, spoke to the memorandum updating Members of consents granted, consents under application and consent processing actions, since the last meeting. The information was summarised in the attachments. The reports provided more information on consultation undertaken with iwi and the community.

Recommended

That the Taranaki Regional Council:

- a) receives the schedule of resource consents granted and other consent processing actions, made under delegated authority.

Davey/Littlewood

11. Report on notified discharge permit application – Stratford District Council Treated Wastewater Discharge

- 11.1 Mr A D McLay, Director – Resource Management, spoke to the memorandum recommending the approval of a resource consent for Stratford District Council to discharge treated wastewater from the Stratford Wastewater Treatment Plant into the Patea River and answered questions arising.
- 11.2 It was clarified that the Stratford District Council has allowed for future growth of the township with the new treatment system.

Recommended

That the Taranaki Regional Council:

- a) receives this memorandum
- b) notes the extensive and collaborative prehearing process that has occurred to successfully resolve submissions on the application
- c) approves the consent application as recommended in the attached report.

McIntyre/Davey

12. Submission on the Discussion Document: Accelerating Renewable Energy and Energy Efficiency

- 12.1 Mr A D McLay, Director – Resource Management, presented the memorandum to introduce the submission on the discussion document *Accelerating renewable energy and energy efficiency* and to recommend its endorsement.
- 12.2 It was noted that Officers had sent this submission to the Policy and Planning Committee requesting feedback before it was submitted.

Recommended

That the Taranaki Regional Council:

- a) receives the memorandum *Submission on the Discussion Document: Accelerating Renewable Energy and Energy Efficiency*
- b) notes the submission was made prior to endorsement by Council
- c) endorses the submission.

Littlewood/McIntyre

13. Update on Taranaki Taku Tūrangā Our Place – Towards Predator Free Taranaki Project

- 13.1 Mr S Hall, Director – Operations, spoke to the memorandum presenting information the quarterly update on the progress of the *Taranaki Taku Tūrangā Our Place – Towards Predator-Free Project* and answered questions arising.

Recommended

That the Taranaki Regional Council:

- a) receives this memorandum *Taranaki Taku Tūrangā Our Place – Towards Predator-Free Taranaki Project*
- b) notes the progress and milestones achieved in respect of the urban, rural and zero density possum projects of the *Taranaki Taku Tūrangā Our Place – Towards Predator-Free Taranaki project*

Walker/Williamson

14. Submissions on National Environmental Standards for Outdoor Storage of Tyres and Air Quality

- 14.1 Mr G K Bedford, Director – Environmental Quality, spoke to the memorandum presenting two submissions sent to the Ministry for the Environment:
- Submission on the *Proposed National Environmental Standards for the Outdoor Storage of Tyres* (NES-OST)

- Submission on the *Proposed Amendments to the National Environmental Standards for Air Quality: particulate matter and mercury emissions* (NES-AQ)

14.2 It was noted that Officers had sent these two submissions to the Policy and Planning Committee requesting feedback before they were submitted.

Recommended

That the Taranaki Regional Council:

- a) receives the memorandum entitled *Submissions on National Environmental Standards for the Outdoor Storage of Tyres and Air Quality*
- b) endorses the following submissions sent to the Ministry for the Environment by their due dates:
 - Submission on the *Proposed National Environmental Standards for the Outdoor Storage of Tyres* (NES-OST)
 - Submission on the *Proposed Amendments to the National Environmental Standards for Air Quality: particulate matter and mercury emissions* (NES-AQ)

McIntyre/Davey

15. Financial and Operational Report

15.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum to receive information on the operational and financial performance of Council and answered questions arising.

Recommended

That the Taranaki Regional Council:

- a) receives the memorandum and the January and February 2020 financial reports
- b) notes the Regional Integrated Ticketing System update
- c) notes the digital media report
- d) notes the health and safety reports for January 2020 and February 2020

Cloke/Williamson

16. Quarterly Operational Report

16.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum to consider and receive the Quarterly Operational Report (QOR) for the quarter ended 31 December 2019 and answered questions arising.

Recommended

That the Taranaki Regional Council:

- a) receives and adopts the Quarterly Operational Report for the quarter ended 31 December 2019

Lean/McDonald

17. Port Taranaki Ltd: Half Year Report to 31 December 2019

- 17.1 Mr B G Chamberlain, Chief Executive, spoke to the memorandum to receive and consider Port Taranaki's report on the operations and activities of the company for the six months ended 31 December 2019.
- 17.2 Councillors D N MacLeod and C L Littlewood declared an interest in Port Taranaki Ltd.

Recommended

That the Taranaki Regional Council:

- a) receives Port Taranaki Limited's report for the six months ended 31 December 2019 including the unaudited financial report
- b) notes the 2019/2020 Port Taranaki Ltd dividends of \$3,500,000 in September 2019 and \$4,500,000 in February 2020.

Joyce/Williamson

18. Regional Software Holdings Ltd: Six Month Report to Shareholders to 31 December 2019

- 18.1 Mr M J Nield, Director - Corporate Services, spoke to the report to receive and consider Regional Software Holdings Ltd's interim report on the operations and activities of the company for six months ending 31 December 2019.
- 18.2 Mr M J Nield declared an interest in RHSL as the chairman and board member.

Recommended

That the Taranaki Regional Council:

- a) receives Regional Software Holdings Ltd's interim report for the six months ended 31 December 2019 including the unaudited financial report.

Cloke/Williamson

19. Regional Software Holdings Ltd: Draft Statement of Intent of 2020/2021 to 2022/2023

- 19.1 Mr M J Nield, Director - Corporate Services, spoke to the memorandum to receive and consider Regional Software Holdings Ltd's Statement of Intent (SOI) for the year ending 30 June 2021 and then to provide feedback to the Board of Directors.
- 19.2 Mr M J Nield declared an interest in RHSL as the chairman and board member.
- 19.2 RHSL are well underway with planning of the next generation of IRIS.
- 19.3 Councillor D N MacLeod expressed his gratitude to Mr M J Nield for the work he puts in the RSHL.

Recommended

That the Taranaki Regional Council:

- a) receives the Regional Software Holdings Ltd's Statement of Intent for the year ended 30 June 2021
- b) provides feedback to the Board of Directors of Regional Software Holdings Ltd.
Lean/MacLeod

20. Taranaki Stadium Trust Half Year Report to 31 December 2019

- 20.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum to receive and consider the Taranaki Stadium Trust's half-year report for the six months ended 31 December 2019.
- 20.2 Mr M J Nield and Councillor E D Van Der Leden declared an interest in Taranaki Stadium Trust as Trustees.

Recommended

That the Taranaki Regional Council:

- a) receives the Taranaki Stadium Trust's half-year report for the six months ended 31 December 2019.
Williamson/Cloke

21. Taranaki Stadium Trust: Statement of Intent for the Year Ending 30 June 2021

- 21.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum to receive and consider the Taranaki Stadium Trust's Statement of Intent (SOI) for the year ending 30 June 2021 and then to provide feedback to the Trustees.
- 21.2 Mr M J Nield and Councillor E D Van Der Leden declared an interest in Taranaki Stadium Trust as Trustees.
- 21.3 Councillor M P Joyce congratulated Mr M J Nield for the work he has put in to the Taranaki Stadium Trust and the way he has dealt with the many challenges over the past year. Councillor E D Van Der Leden also expressed thanks to Mr M J Nield for the guidance he has given her as a new trustee to the Taranaki Stadium Trust.

Recommended

That the Taranaki Regional Council:

- a) receives the Taranaki Stadium Trust's Statement of Intent for the year ending 30 June 2021
- b) provides feedback to the Trustees of the Taranaki Stadium Trust.
Joyce/MacLeod

22. Key Functions and Terms of Reference for Regional Transport Committee

- 22.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum advising of the functions of the Regional Transport Committee and the Regional Transport Advisory Group and providing a draft Terms of Reference for the groups.

Recommended

That the Taranaki Regional Council:

- a) notes the role of regional transport committees, as required by the *Land Transport Management act 2003*
- b) receives and endorses the Terms of Reference for the Regional Transport Committee for Taranaki, subject to any comments received
- c) receives and endorses the Terms of Reference for the Regional Transport Advisory Group for Taranaki, subject to any comments received
- d) notes the decision by Stratford District Council to again, join the Taranaki region in respect of transport matters, and that a Memorandum of Understanding has been completed to formalise this arrangement.

McDonald/Cloke

23. General business

23.1 Annual Plan

A discussion was held around the potential to have a lower rates increase than previously forecast. Executive Officers are working through their budgets, looking at realigning some projects or deferring them, to lower costs in order to potentially reduce the rates increase. It was noted that if costs are reduced then over the next couple of years, Council would need to be playing catch-up.

Executive Officers are working on an application to Crown Infrastructure Partners to include the Yarrow Stadium project as an infrastructure project that could be ready to go within the next six months to have some funding provided to assist with the refurbishment.

24. Public Excluded

- 24.1 In accordance with section 48(1) of the *Local Government Information and Meetings Act 1987*, resolves that the public is excluded from the following part of the proceedings of the Executive, Audit and Risk Committee Meeting on Tuesday 7 April 2020 for the following reasons:

25. Public Excluded Ordinary Minutes – 25 February 2020

THAT the public conduct of the whole or relevant part of the proceedings of the meeting 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 unreasonably to prejudice the commercial position of the person who supplied or who is subject of the information.

26. Public Excluded Emergency Ordinary Minutes – 25 March 2020

THAT the public conduct of the whole or relevant part of the proceedings of the meeting 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 unreasonably to prejudice the commercial position of the person who supplied or who is subject of the information.

27. Public Excluded Executive, Audit and Risk Committee Minutes – 17 February 2020

THAT the public conduct of the whole or relevant part of the proceedings of the meeting 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 unreasonably to prejudice the commercial position of the person who supplied or who is subject of the information.

28. Prosecution

THAT the public conduct of whole or relevant part of the proceedings of the meeting would be likely to result in the disclosure of information where such disclosure would be likely to prejudice the maintenance of the law, including the prevention, investigation and detection of offences, and the right to a fair trial.

29. Yarrow Stadium Project Steering Group Update

THAT the public is excluded to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.

Lean/Walker

There being no further business, Chairman D N MacLeod, declared the Public Ordinary Meeting of the Taranaki Regional Council closed at 12.17pm.

Confirmed

Chairperson:

D N MacLeod

19 May 2020



Date: 19 May 2020, 10.30am
 Venue: Meeting held via audio-visual conferencing (Zoom)
 Document: 2466927

Present	Councillors	D N MacLeod M P Joyce M J Cloke M G Davey D L Lean C L Littlewood M J McDonald D H McIntyre E D Van Der Leden N W Walker C S Williamson	(Chairperson) (Deputy Chairperson)
Attending	Messrs	B G Chamberlain S R Hall M J Nield G K Bedford A D McLay B Pope C McLellan S Tamarapa P Ledingham T K Davey	(Chief Executive) (Director - Operations) (Director - Corporate Services) (Director - Environment Quality) <i>part meeting</i> (Director - Resource Management) (Compliance Manager) <i>part meeting</i> (Consents Manager) <i>part meeting</i> (Iwi Communications Officer) (Communications Advisor) (Communications Advisor)
	Ms	V McKay	(Science Manager)
	Miss	H Gerrard L Davidson	(Science Manager) <i>part meeting</i> (Committee Administrator)

One member of the public, Mr M Watson, Taranaki Daily News – Reporter.

Apologies There were no apologies received.

Notification of Late Items There were no late items.
 It was noted that there was a minor amendment made to item two the Consent Monitoring Annual Report memorandum, specifically the Mangati section of the report.

1. Confirmation of Minutes – 7 April 2020

Resolved

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes and resolutions of the Ordinary Meeting of the Taranaki Regional Council via audio-visual link (Zoom) on Tuesday 7 April 2020.

Lean/McIntyre

Matters Arising

There were no matters arising.

2. Consent Monitoring Annual Reports

- 2.1 Ms H Gerrard, Science Manager Business Support, spoke to the item advising of five tailored compliance monitoring reports that have been prepared since the last meeting.

Resolved

That the Taranaki Regional Council:

- a) receives the 19-10 Mangati Catchment Integrated Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein
- b) receives the 19-72 South Taranaki Water Supplies Monitoring Programme Annual Report 2018-2019 and adopts the recommendations therein
- c) receives the 19-94 Port Area Catchments (Hongihongi+Herekawe) Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein
- d) receives the 19-95 Waitaha Catchment Monitoring Programme Annual Report 2019-2019 and adopts the specific recommendations therein
- e) receives the 19-96 Oanui Water Supply Ltd Monitoring Programme Annual Report 2018-2019 and adopts the specific recommendations therein.

Lean/Davey

3. Resource Consents Issued Under Delegated Authority and Applications in Progress

- 3.1 Mr C McLellan, Consents Manager, spoke to the report advising of consents granted, consents under application and of consent processing actions since the last meeting.
- 3.2 Councillors N W Walker and M P Joyce declared an interest in Taumaha Trust.

Resolved

That the Taranaki Regional Council:

- a) receives the schedule of resource consents granted and other consent processing actions, made under delegated authority.

Lean/Williamson

4. Incidents, Compliance Monitoring, Non-compliances and Enforcement Summary 27 February 2020 to 29 April 2020

- 4.1 Mr B Pope, Compliance Manager, spoke to the memorandum considering and receiving the summary of incidents, compliance monitoring non-compliances and enforcement for the period 27 February 2020 to 29 April 2020.

Resolved

That the Taranaki Regional Council:

- a) receives this memorandum Incidents, Compliance Monitoring Non-compliances and Enforcement for the period 27 February to 29 April 2020
- b) receives the summary of incidents, compliance monitoring non-compliances and enforcement for the period from 27 February 2020 to 29 April 2020, notes the action taken by staff acting under delegated authority and adopts the recommendations therein.

Lean/Williamson

5. Our Freshwater 2020: MfE and Stats NZ report

- 5.1 Mr A D McLay, Director – Resource Management, spoke to the memorandum introducing *Our Freshwater 2020* the latest report in New Zealand’s environmental reporting series prepared by the Ministry for the Environment and Stats NZ.

Resolved

That the Taranaki Regional Council:

- a) receives the memorandum ‘*Our Freshwater 2020: MfE and Stats NZ report*’.

Cloke/Van Der Leden

6. Report on the Environment Committee on the Resource Management Amendment Bill 2019

- 6.1 Mr B G Chamberlain, Chief Executive, spoke to the memorandum updating members on the Environment Select Committee’s Report to Parliament on the Resource Management Amendment Bill 2019 subsequent to the Committee having heard submissions on the Bill.

Resolved

That the Taranaki Regional Council:

- a) receives the memorandum *Report for the Environment Committee on Resource Management Amendment Bill 2019*
- b) notes the Bill includes some useful proposed changes to the Resource Management Act
- c) notes the climate change provisions of the Bill are very challenging for a region with some high producing greenhouse gas emission facilities associated with industries based around oil and gas production and use

- d) notes the Bill will be brought before the House for a second reading and potentially subsequent readings, before being passed into law, but is a strong indication of the coalition government's policy position.

MacLeod/Williamson

7. Regional Sector Update on the Government's Freshwater Proposals

- 7.1 Mr B G Chamberlain, Chief Executive, spoke to the memorandum updating members on the Government's freshwater proposals and discussions.

Resolved

That the Taranaki Regional Council:

- a) receives this memorandum on the Government's freshwater proposals update
- b) notes the Chair and Chief Executive have been in separate discussions with Government Ministers on the freshwater reforms.

Joyce/Davey

8. Electoral Officer's Report on the 2019 Triennial Elections

- 8.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum receiving the Council's Electoral Officer's Report on the 2019 Triennial Election.
- 8.2 Councillor Littlewood moved a motion to request that Officers bring an agenda memorandum to Council detailing the voting options for the Triennial elections prior to September 2020.

Resolved

That the Taranaki Regional Council:

- a) requests a report on voting options for the 2022 Triennial Elections.

Littlewood/Joyce

Resolved

That the Taranaki Regional Council:

- a) receives the Electoral Officer's Report on the 2019 Triennial Elections.

Williamson/Van Der Leden

9. Local Government Funding Agency Amendments

- 9.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum considering amendments to certain LGFA documents and to authorise the execution of those documents.

Resolved

That the Taranaki Regional Council:

- a) receives the New Zealand Local Government Funding Agency (LGFA) Amendments report
- b) authorises entry into the documentation noted
- c) authorises any two of the elected members to execute the following deeds for the purposes of recommendation b) above:
 - Amendment and Restatement Deed (Multi-issuer Deed)
 - Amendment and Restatement Deed (Notes Subscription Agreement)
 - Amendment and Restatement Deed (Guarantee and Indemnity)
- d) authorises the Chief Executive to execute the Chief Executive Certificate and such other documents and take such other steps on behalf of Council as the Chief Executive considers it necessary or desirable to execute or take to give effect to recommendation b) above.

Davey/McIntyre

10. Public Transport Operational Update for the Quarter Ending 31 March 2020

- 10.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum providing members with an operational report on public transport services for the quarter ending 31 March 2020, noting that the Covid-19 Pandemic affected the transport services dramatically.
- 10.2 Council and service operators are following national advice and protocols in respect of all services.

Resolved

That the Taranaki Regional Council:

- a) receives and notes the operational report of the public transport services for the quarter ending 31 March 2020.

Cloke/McDonald

11. Financial and Operational Report

- 11.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum receiving information on the operational financial performance of the Council and to confirm the use of the Council's Common Seal.

- 11.2 Staff were acknowledged for the way they reacted to the situation and working from different environments. Specific mention was given to the Communications team for the work they put in to keeping the community engaged with the Facebook posts.

Resolved

That the Taranaki Regional Council:

- a) receives the memorandum and the March 2020 Financial Report
- b) approves the three common seal transactions
 - 2020/01 – Renewal of Lease – Bulk Storage Terminals Ltd – 35-39 Centennial Drive, New Plymouth
 - 2020/02 – Renewal of Lease – Bidfood Ltd – 27 Centennial Drive, New Plymouth
 - 2020/03 – Renewal of Lease – Bidfood Ltd – 31 Centennial Drive, New Plymouth
- c) notes the Regional Ticketing Integrating System Update
- d) notes the digital media update
- e) notes the health and safety update
Walker/Littlewood

12. Audit Proposal and 2019/2020 Audit Engagement Letter

- 12.1 Mr M J Nield, Director – Corporate Services, spoke to the memorandum to receive and consider the audit proposal letter for the audit of the Council and group for the years ended 30 June 2020, 30 June 2021 and 30 June 2022 and the audit engagement letter for the audit of the *2019/2020 Annual Report*.

Resolved

That the Taranaki Regional Council:

- a) receives and approves the audit proposal letter for the audit of the Council and Group for the years ended 30 June 2020, 30 June 2021 and 30 June 2022 and the audit engagement letter for the audit of the *2019/2020 Annual Report*.
McDonald/Van Der Leden

13 2020/2021 Annual Plan, Estimates and Administrative Charges Pursuant to Section 36 of the Resource Management Act 1991

- 13.1 Mr B G Chamberlain, Chief Executive, spoke to the memorandum to receive and consider an update on the 2020/2021 estimates and Annual Plan and then to commence the special consultative procedure (section 83 of the *Local Government Act 2002* – LGA) to enable the Council to fix its 2020/20201 administrative charges pursuant to section 36 of the *Resource Management Act 1991* (RMA).

Resolved

That the Taranaki Regional Council:

- a) receives and notes this memorandum on the update to the 2020/2021 estimates and Annual Plan and to commence the special consultative procedure (section 83 of the *Local Government Act 2002*) to enable the Council to fix its 2020/2021 administrative charges pursuant to section 36 of the *Resource Management Act 1991*
- b) approves the update of the 2020/2021 estimates and Annual Plan in relation to amending the estimates to hold general rates at 2019/2020 levels
- c) notes the update changes the earlier proposal for a 3.8% general rates increase to a 0% change for the 2021/2022 financial year
- d) notes the impact of reducing estimates and revenue streams on the starting point for 2021/2022 and the *2021/2031 Long-Term Plan*
- e) adopts the statement of proposal to fix administrative charges pursuant to section 36 of the *Resource Management Act 1991* for 2020/2021
- f) notes and approves that a summary of the statement of proposal will not be prepared
- g) notes and approves the timetable for the completion of the special consultative procedure and the fixing of the schedule of administrative charges pursuant to section 36 of the *Resource Management Act 1991*
- h) delegates to the Chief Executive the ability to address the payment terms of section 36 of the *Resource Management Act 1991* administrative charges, where the consent holder is facing financial difficulties, by application on a case by case basis.

Davey/Williamson

14. Governance and decision-making arrangements during Covid-19 Pandemic

- 14.1 Mr B G Chamberlain, Chief Executive, spoke to the memorandum for Council to review its decision put in place at the Emergency Ordinary Meeting on 25 March 2020 regarding appropriate governance and decision making arrangements during Covid-19 Pandemic.
- 14.2 On 15 May 2020 it was advised by LGNZ that Council meetings are classified as work so there is no restrictions on the number of people who can attend, however physical distancing is still required.

Resolved

- a) receives the memorandum Governance and decision making arrangements during Covid-19 Pandemic
- b) agrees to return to the regular committee and ordinary meeting cycle with all meetings being in-person
- c) monitor the alert level updates and rules as Government changes the protocols.

McDonald/Davey

15. Meeting Dates Notification

- 15.1 The meeting dates for the next round of meetings throughout May and June 2020 were attached for members.

16. Public Excluded

- 16.1 In accordance with section 48(1) of the *Local Government Information and Meetings Act 1987*, resolves that the public is excluded from the following part of the proceedings of the Ordinary Meeting on Tuesday 19 May 2020 for the following reasons:

17. Public Excluded Ordinary Minutes - 7 April 2020

THAT the public conduct of the whole or the relevant part of the proceedings of the meeting 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 unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.

18. Prosecution

THAT the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information where such disclosure would be likely to prejudice the maintenance of the law, including the prevention, investigation and detection of offences, and the right to a fair trial.

19. Yarrow Stadium Repair and Refurbishment Project: Project Steering Group Report

THAT the public conduct of the whole or the relevant part of the proceedings of the meeting 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 unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information.

Lean/Walker

There being no further business, Chairman D N MacLeod, declared the Public Ordinary Meeting of the Taranaki Regional Council closed at 12.30pm.

Confirmed

Chairperson:

D N MacLeod

30 June 2020



Date: 7 April 2020

Subject: **Lakes380: National Lake Health Research Project**

Approved by: G K Bedford, Director - Environment Quality
B G Chamberlain, Chief Executive

Document: 2439671

Purpose

1. The purpose of this memorandum is to introduce members to the *Lakes380* project (the project), the work being carried out in Taranaki as part of the project and progress on that work to date.

Executive summary

2. The *Lakes380* project is a five-year environmental research project that has received funding from the Ministry of Business, Innovation and Employment. The project aims to characterise the past and current health of New Zealand's lakes by analysing sediment cores taken from 380 lakes across the country. The number of lakes being assessed represents a 10% subset of the 3,800 natural lakes in New Zealand greater than one hectare in area.
3. The project represents the biggest scientific study of lakes ever undertaken in New Zealand.
4. The project is jointly led by GNS Science and the Cawthron Institute. Further input is provided by over 30 project partners and collaborators.
5. The *Lakes380* project incorporates a significant partnering with local iwi and hapū and aims to draw on their mātauranga and long associations with monitored lakes.
6. The initial selection of lakes was based on scientific criteria to capture a nationally representative range of lakes. This involved making sure the sample included lakes across the country that span a gradient of variables including land use, altitude, size, depth etc. This list was then provided to central government (MfE, DOC).
7. As part of the site selection process, the project team drew together a provisional list of lakes in each region for investigation. Regional councils and iwi then had input. Council staff provided information relating to each lake. Eight Taranaki lakes were selected for inclusion in the project. All lakes identified for sampling were located in South Taranaki, the majority in the Waitotara/Waverly area. As such, the project team have collaborated with Ngāti Ruanui and Ngā Rauru with regard to site selection. Site selection was finalised following these discussions and confirmation of access arrangements.

8. The specific lakes selected for inclusion in the project were Rotokare, Kaikura, Waiau, Moumahaki, Oturi, Waikare, Mangawhio and Herengawe.
9. The project team visited Taranaki to undertake the sampling work in October 2019. Council staff accompanied them during sampling at a number of sites. Representatives of each iwi were also offered the opportunity to be involved in the fieldwork.
10. At each monitored lake, traditional scientific methods for assessing the current state of lake health were implemented. These included sampling of the lake water, lake sediments, surrounding soils and vegetation.
11. In addition, sediment cores were also obtained from the bed of each lake. High-resolution analysis of sediment cores and environmental DNA analysis can shed light on changes in sediment sources and deposition rates, variations in water composition and changes in plant, insect and fish community structures (e.g. pest fish and plant introductions etc.) over time. This data enables the environmental history of each lake to be reconstructed as far back as 1,000 years ago.
12. The results of the monitoring will be used to determine how and why lake communities and water quality have changed through history. This knowledge can then be used to inform restoration works and to develop management strategies to improve the health of our lakes at both a local and national scale.
13. From a Taranaki perspective, the results of the monitoring will significantly improve and extend our understanding of regional lake health and the drivers of changes in lake health over time. The work will also provide a comprehensive baseline of lake health at monitored sites and help inform future lake monitoring strategies.
14. To date, the majority of water quality and surface sediment samples have been processed, but the data has not yet been analysed. Analysis of the sediment cores obtained from Taranaki lakes is due to take place over the coming months. When available, the results of this work will be presented to this Committee in a follow-up item.

Recommendations

That the Taranaki Regional Council:

- a) receives the memorandum describing the *Lakes380* research project
- b) notes that sampling of eight lakes in Taranaki as part of the project has been completed and that results of this work will be reported once available
- c) notes the engagement of the Council and local iwi as participants in the project.

Background

15. The *Lakes380* project is a five-year MBIE-funded environmental research project, which commenced in 2018. The project aims to characterise the historical and present health of New Zealand's lakes by analysing sediment cores taken from 380 lakes across the country. The number of lakes being assessed represents a 10% subset of the 3,800 natural lakes in New Zealand that are greater than one hectare in area.
16. The project represents the biggest scientific study of lakes ever undertaken in New Zealand.

17. The project is jointly led by GNS Science and the Cawthron Institute. Further input is being provided by over 30 project partners and collaborators.
18. The *Lakes380* project incorporates a significant partnering with local iwi and hapū and aims to draw on their mātauranga and long associations with monitored lakes.
19. This Committee has been regularly informed of the findings that emerge from the Council's various freshwater State of the Environment monitoring programmes. These programmes are important as indicators of the effectiveness of the Council's and community's interventions and resource management initiatives addressing freshwater quality in the region. Members will be aware that there is a high level of interest nationally in the state and management of the country's fresh water resources.
20. One of the Council's State of the Environment monitoring programmes measures the ecological and water quality state of Lake Rotorangi, as an example of the state of lakes in the region. An item detailing the latest monitoring results from this programme was presented to this Committee in April 2018. In summary, monitoring shows that the lake's condition continues to be classified as mesotrophic, with no change showing in trophic level over the period 1990-2017, and that its water quality meets all applicable National Objective Framework criteria set out in the *National Policy Statement for Freshwater Management 2017* (NPS-FM). The *Lakes380* project and associated sampling work was briefly introduced to Committee members during the presentation that accompanied the item referenced above.
21. Regular monitoring by the Council for contact recreation suitability also takes place at Lake Rotomanu, Rōtōkare, Ōpunake and Rātāpiko. These sites meet guideline limits for contact recreation (both *E.coli* and planktonic cyanobacteria) for the vast majority of the time.

Discussion

22. The *Lakes380* project represents the biggest scientific study of lakes ever undertaken in New Zealand. The project aims to characterise the health of New Zealand's lakes by analysing sediment cores taken from 380 natural lakes in New Zealand (Figure 1).
23. Eight of the 380 lakes to be sampled as part of the project are located in Taranaki. The selection of lakes for inclusion in the project was made in consultation with local iwi, specifically Ngāti Ruanui and Ngā Rauru.
24. Details of lakes sampled in Taranaki are presented in Table 1 and their locations are illustrated in Figure 2.
25. The programme of sampling at each lake included a combination of traditional scientific monitoring methods (water, sediment, soil and vegetation samples) in addition to obtaining sediment cores from the lake bed for more novel analyses.
26. While traditional analytical approaches are useful in assessing the current state of monitored lakes, the analysis of sediment cores can give insight into both the drivers and rates of environmental change over time. In this project, the sediment core analytics being utilised can reconstruct a lake's environmental history as far back as 1,000 years ago. The full range of monitoring carried out at each lake is summarised in Table 2.
27. The sampling of Taranaki lakes was completed in October 2019. Council staff assisted the project team with access arrangements and also accompanied them during sampling at a number of sites.

28. The opportunity to be involved in the sampling work was also extended to iwi.

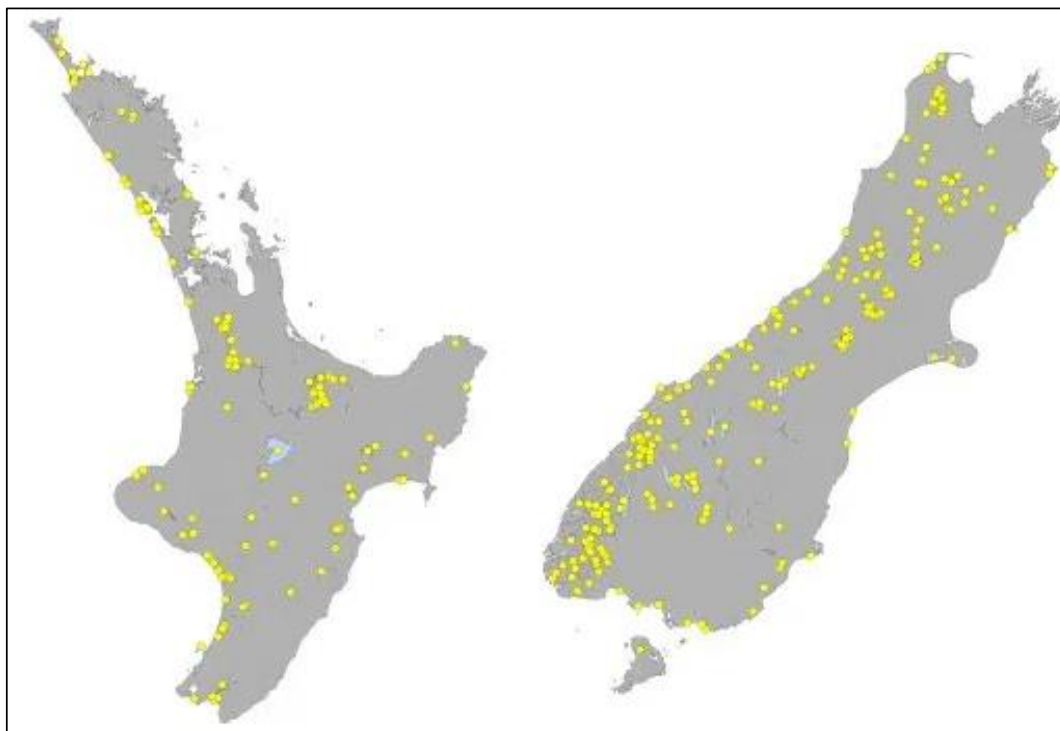


Figure 1: Locations of lakes being sampled across New Zealand as part of the *Lakes380* project (note: provisional and subject to change)

Table 1: Details of the Taranaki lakes selected for inclusion in the *Lakes380* project

Lake	Lake area (ha)	Iwi rohe
Rotokare	15.7	Ngāti Ruanui
Kaikura	5.3	Ngāti Ruanui
Waiau	26.6	Ngā Rauru
Moumahaki	32	Ngā Rauru
Oturi	11.9	Ngā Rauru
Waikare	7	Ngā Rauru
Mangawhio	8.6	Ngā Rauru
Herengawe	14.7	Ngā Rauru

29. The majority of water quality and surface sediment samples obtained in Taranaki have been processed, but the data has not yet been analysed. Analysis of the sediment cores from Taranaki lakes is due to take place over the coming months.
30. When available, the results of this work will be presented to this Committee in a follow-up item.
31. The results of the monitoring will be used to determine how and why lake communities and water quality has changed through history. This knowledge can then be used to

inform restoration works and develop management strategies to improve the health of our lakes at both a local and national scale.

32. From a Taranaki perspective, the results of the monitoring will significantly improve and extend our understanding of regional lake health and the drivers of changes in lake health over time. The work will also provide a comprehensive baseline of lake health at monitored sites and help inform future lake monitoring strategies and freshwater management policies and practices.



Figure 2: Locations of lakes sampled in Taranaki as part of the *Lakes380* project

Table 2: Range of analyses carried out at each monitored lake

Sample type	Amount	Purpose
Core samples	Up to 6 cores from each lake. These cores are up to 3 m long and 9 cm in diameter	Collection of core samples from the lake beds for chemical, isotopic, environmental DNA and paleontological analyses (e.g., assessment of biological communities)
Rock and soil samples	Up to 2 kg per lake	Collection of small rock and soil samples (typically less than 2 kg) from boulders or rock outcrops and soils for isotopic, geochemical, nutrients and to assess catchment nutrient levels and productivity
Lakebed sediment samples	Approx. 1.5 kg	To analyse the following: biological taxa identification and enumeration, environmental DNA/RNA, pigments, sedimentology, chemical and nutrients, and organic contaminants, and micro plastics
Water samples	Up to 7 litres	To analyse the following: dissolved and total nutrients, chlorophyll-a and other pigments, trace metals, suspended and volatile solids, organic carbon, phytoplankton, zooplankton, environmental DNA
Terrestrial vegetation samples	Up to 1.5 kg	Collection of small plant samples from the lake margin and immediate catchment for chemical, isotopic and environmental DNA analyses (e.g., assessment of catchment and biological communities)

Conclusions

33. The *Lakes380* project is the most intensive and wide scale investigation of lake health ever undertaken in New Zealand. A number of lakes in Taranaki are being included in the study, including lakes that have not hitherto been studied in detail.
34. The project is utilising novel sediment core analytics to reconstruct environmental histories at monitored lakes. The results of the analyses will be used to determine how and why lake communities and water quality has changed through history. This knowledge can then be used to inform restoration works and develop management strategies to improve the health of our lakes at both a local and national scale.
35. From a Taranaki perspective, the results of the monitoring will significantly improve our understanding of regional lake health and the drivers of changes in lake health over time. The work will also provide a comprehensive lake health baseline at monitored sites.
36. The results of this work will help inform future lake monitoring strategies, alongside existing State of the Environment monitoring data.



Photo 1: The project team with the sediment core taken from Lake Rotokare



Photo 2: Sampling about to commence on Lake Herengawe, Waverly, South Taranaki



Photo 3: Lake Waikare, located inland from Waverly, South Taranaki

Decision-making considerations

37. 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

38. 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

39. 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

40. 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

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

Appendices/Attachments

Document 2445305: *Lakes380: Lake Pounui (Wairarapa) case study*

Document 2445306: *Lakes380: Lake Killarney (Takaka) case study*



Lakes380

Our lakes' health
past, present, future



CASE STUDY

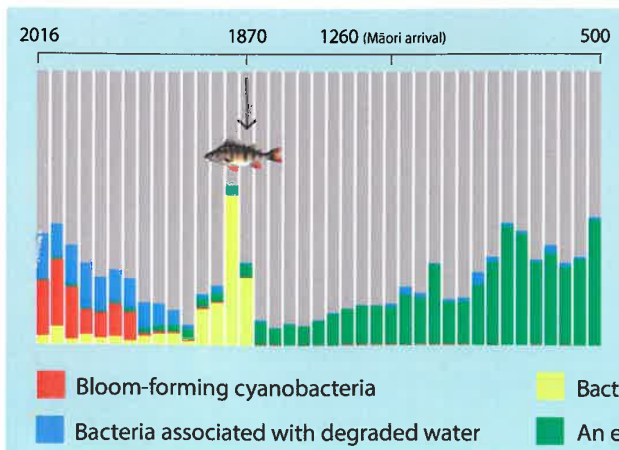
Enhancing lake management through learning from the past

LAKE POUNUI

The catchment of Lake Pounui (Wairarapa) is 95% native forest. However recent monitoring shows the lake has severe cyanobacterial blooms and poor water quality. In the absence of land-use change, what has caused the decline in lake health?

Answers to this question can be found by taking sediment cores from the bottom of the lake. Laid down year upon year, sediments preserve indicators of lake life and water quality, equivalent to centuries of monitoring. Using a combination of microscopic, chemical and DNA-based methods we can determine how and why lake communities and water quality has changed. This information can be used to inform restoration and develop management strategies.

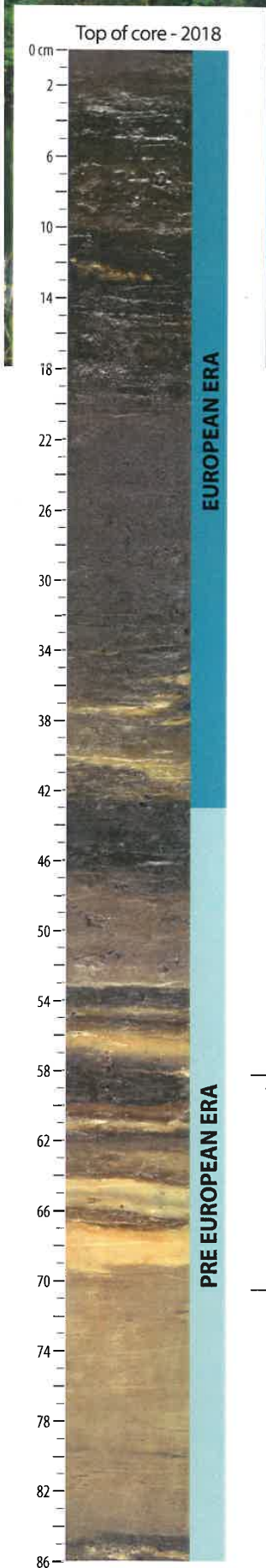
Analysis of the sediment core from Lake Pounui suggests that the introduction of non-native fish in the late 1870's caused a dramatic shift in the food web which ultimately caused the cyanobacterial blooms. Many of the species living in the lake prior to this introduction are still present, but only in low abundance. If non-native fish could be removed and steps taken to the reduce nutrients, lake health would improve.



ENVIRONMENTAL DNA

The colours bars represent different types of bacteria. There are two key findings:

1. Bloom forming cyanobacteria (red bars) were not present before European arrival
2. Introduced fish (perch and trout) caused a dramatic change in the types of bacteria in the lake



LAKE KILLARNEY

Depth: 12 m **Location:** Takaka Township **Region:** Tasman **Coordinates:** 40°51'07 S 175°48'29 E

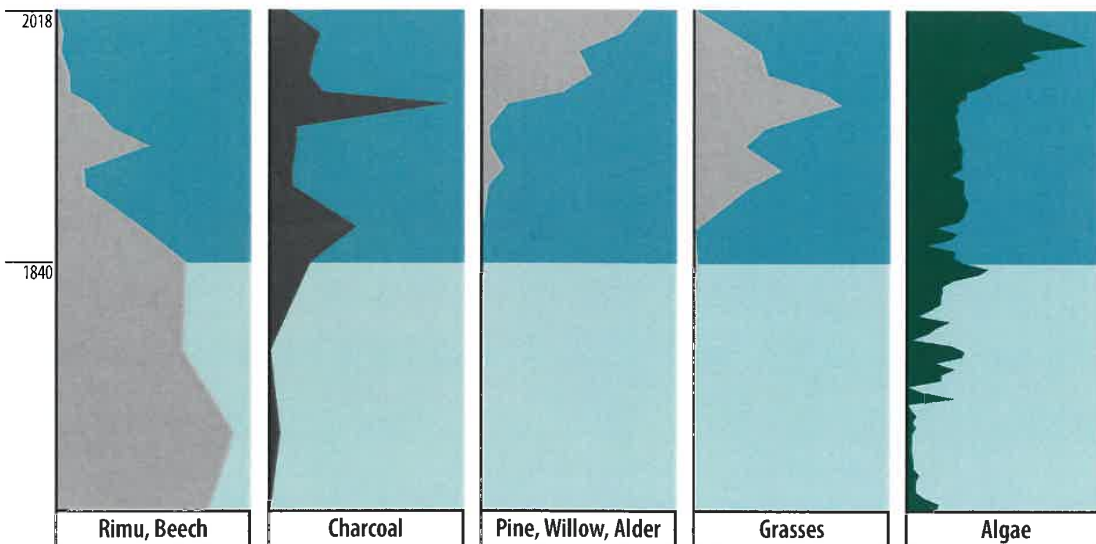
Lake Killarney is a small lake surrounded by park and residential houses. Residents remember swimming in this lake in the 1970's. It now experiences severe algal blooms and has poor water quality.

The initial results show prior to human arrival the margins of the lake were dominated by rimu and beech forest (see graphic below). The light brown/cream colour bands in the core (pictured left) between 55 - 70 cm are likely caused by mud and soil washed into the lake from the surrounding land.

Europeans settled in this region. Native forest is removed, and the charcoal data suggests increased burning in the surrounding landscape. Following this European tree species are planted and there is an increase in grasses around the lake. There is a notable increase in total algae in the European era. DNA analysis shows this is dominated by potentially toxic algae (cyanobacteria).

Forest composition shifts dramatically when

POLLEN, CHARCOAL AND ALGAE ABUNDANCE FOR THE PAST ~800 YEARS



The larger the shaded area, the higher the concentration of plant or charcoal.



Date 9 June 2020

Subject: **Te Āhua o Ngā Kūrei - Ngāti Mutunga Estuary Project (Curious Minds)**

Approved by: G K Bedford, Director - Environment Quality
B G Chamberlain, Chief Executive

Document: 2443051

Purpose

1. The purpose of this memorandum is to provide the Council with an update on the progress of Te Āhua o Ngā Kūrei - Ngāti Mutunga Estuary Project.
2. Staff from Ngāti Mutunga and Council will also make a presentation to the Committee.

Executive summary

3. Due to concerns regarding the mauri and health of the Mimitangiatua (Mimi) and Urenui estuaries, Te Rūnanga o Ngāti Mutunga (Ngāti Mutunga) decided to seek funds to investigate the estuaries through a citizen science project.
4. In late 2018, Ngāti Mutunga successfully received funds from the Participatory Science Platform (Curious Minds) to undertake Te Āhua o Ngā Kūrei - Ngāti Mutunga Estuary Project (the project) during 2019. The 'Curious Minds' project is co-administered within Taranaki by Venture Taranaki and the Council.
5. Mimi, Urenui and Uruti Schools, and the Clifton Community Board became community partners in the project, and the Council had the role of science and education partner.
6. The aim of the project was to investigate a range of issues that may have been affecting the health of the estuaries. These ranged from specific issues such as potential sewage contamination in Urenui's stormwater, to broad scale issues such as changing land use throughout the catchments.
7. Given the numerous avenues of investigation, the project included multiple survey components. These components ranged from shellfish surveys, sediment sampling and water testing to predator monitoring. Cultural Health Indicators were also assessed and a questionnaire on perceptions of the estuaries' state of health was distributed throughout the community. The results from these last two components are yet to be collated and assessed.
8. The results from this project have provided valuable information on a range of estuarine health indicators. For example, the location and density of shellfish populations, and

different sediment properties throughout the estuaries have been determined. Results from the sediment core samples provide evidence of each estuary having become muddier over time. Sediment plates that were installed in each estuary are now being monitored by Ngāti Mutunga to track sedimentation trends into the future.

9. Specific pollution issues were also identified with targeted water testing. Samples collected at the outlets of two stormwater lines running through Urenui contained strong evidence of human sewage contamination. Since receiving these results, the New Plymouth District Council (NPDC) has been working to identify potential sources, manage health risks and resolve the situation, in consultation with Ngāti Mutunga, Council, and the Taranaki District Health Board. The Council has also continued collecting water samples in order to monitor the contamination and locate the source. The Council is awaiting a detailed proposal of remedial actions from NPDC and is considering what other interventions may also be required.
10. Further positive outcomes from the project include the ongoing scientific monitoring that has been carried out by Ngāti Mutunga and local schools, demonstrating how the project has successfully engaged the community in using science to learn more about the environment. Ngāti Mutunga are also liaising with other science and research providers to build on the work that was done in this project.
11. The positive working relationship that was created between Ngāti Mutunga and Council was also considered by both parties to be a highlight of the project.

Recommendations

That the Taranaki Regional Council:

- a) receives the update on Te Āhua o Ngā Kūrei - Ngāti Mutunga Estuary Project.
- b) notes the work that has been accomplished to date, and the remaining work to be completed.

Background

12. The major drivers behind Te Āhua o Ngā Kūrei - Ngāti Mutunga Estuary Project (the project), were concerns held by Te Rūnanga o Ngāti Mutunga (Ngāti Mutunga) and other members of the community regarding the mauri and health of the Mimitangiatua (Mimi) and Urenui estuaries.
13. Some of these concerns were related to specific issues. For example, potential sewage contamination in the Urenui estuary due to aging septic tanks, the effects of artificial structures within the estuary, and impacts of pest plants and animals.
14. However, other concerns were more related to activities that were occurring throughout the Mimi and Urenui catchments upstream of the estuaries. For example, closed landfills, industrial discharges, roading projects and land use changes.
15. The Taranaki Regional Council (the Council) was also in the process of scoping a regional estuarine screening assessment (Estuarine Vulnerability Assessment, EVA) at this time. Therefore, it was hoped that the project would be able to benefit from this work.
16. The wider aim of the project was to foster an engagement in science with the community, whilst also incorporating perspectives of Mātauranga Māori and local knowledge.

17. In late 2018, Ngāti Mutunga received funds from the Participatory Science Platform (Curious Minds) to undertake the project in 2019. Mimi, Urenui and Uruti Schools, and the Clifton Community Board were all community partners in the project. Council officers were involved as the science and education partners.

Discussion

18. Given the broad scope of the project, a number of scientific methods were utilised. The first and most involved component was the shellfish survey that was undertaken in Urenui Estuary.
19. The shellfish survey was adapted from NIWA's Estuary Monitoring Toolkit for Iwi, and involved counting the snails, crabs and shellfish living on and beneath the surface of the intertidal mud flats using a transect and quadrat method. This survey was included given the cultural significance of mahinga kai, and also because the presence (or absence) of certain species can be indicative of habitat quality. The surveys were undertaken with school groups from Uruti and Urenui, Ngāti Mutunga whanau and Council officers.
20. The results showed that two shellfish species were present in the mud throughout the estuary in low numbers; tuangi (cockle) and hanikura (wedge shell). Both species were more abundant in the sheltered inlet at the western end of the mudflat. Pupu (mud snail), which are found on the surface of the mud, were much more abundant than the shellfish. Again, they were most numerous in the sheltered inlet at the western end of the mudflat.
21. During follow up classroom sessions, the school groups hypothesised that the differences in results across the mud flat may have been due to differences in the environment (e.g. muddiness, hydrology), larval recruitment, and other factors.
22. The next component in the project was the sediment sampling.
23. Sediment sampling methods were also adapted from the same NIWA toolkit, and involved collecting samples of surface sediments and at various other depths using sediment cores. The samples were analysed in a laboratory to test for sediment composition, nutrients, and contaminants such as metals. These tests were chosen to understand how the estuary has been affected by sediment and nutrients from the catchment, and whether potential sources of metals (e.g. closed landfills, urban stormwater) could be detected. Samples collected at different depths in the mud provide an indication of how the estuary may have changed over time. Sediment plates were also installed, in order to allow for ongoing monitoring of sediment deposition rates. This component was undertaken with Ngāti Mutunga whanau, other members of the community, and Council officers at both Urenui and Mimi estuaries.
24. In terms of the metals analyses, all results from both estuaries were well below the relevant contaminant guidelines (ANZECC, 2000). Total nitrogen concentrations from all samples did not exceed the minor ecological risk category from the Estuarine Trophic Index (Robertson et al., 2016).
25. Sediment cores showed that sediment mud content decreased in samples taken further down the core while sand content increased; providing evidence that these estuaries have become muddier over time. Further work is necessary to accurately assess changes in sedimentation rates.

26. At Urenui, the site with the lowest chlorophyll-a sediment concentration was also the site with the highest concentration of pupu. This may reflect the grazing intensity of these snails on the surface sediments.
27. Stormwater sampling was another component of the project that was undertaken at Urenui estuary.
28. Water samples were collected from two stormwater outlets and one stream which all receive stormwater from the Urenui township and ultimately discharge into the estuary. This sampling was carried out to test whether there was any evidence of human sewage entering the estuary. Locals had long suspected that contamination was possible due to the aging septic tanks systems found throughout Urenui. This work was carried out with Ngāti Mutunga whanau and Council officers.
29. The sample results provided strong evidence that stormwater discharging into the estuary was contaminated with human sewage.
30. Since receiving these results the New Plymouth District Council (NPDC) has been working to manage potential risks to public health, and to also investigate the source of the contamination, and possible solutions, in consultation with Ngāti Mutunga, the Council, and the Taranaki District Health Board (TDHB). At the time of this meeting, NPDC has undertaken further monitoring in the stormwater network and has also inspected a number of private wastewater systems in the township. NPDC have since produced an action plan proposing remedial actions going forward. The action plan contains a number of short to long term measures. Short term actions include things like fixing damaged on-site wastewater systems and cleaning septic tanks. Long term actions include investigating alternative wastewater options for the township (i.e. reticulation), which NPDC has already secured \$350,000 to initiate. NPDC, Ngāti Mutunga, the Council, and TDHB will be meeting shortly to finalise and commence the short term measures of this plan. The Council have continued to monitor the contamination in the interim, in an attempt to identify the locations of the most significant sources of contamination. This sampling has been carried out with representatives of Ngāti Mutunga and the TDHB present.
31. Additional components of the project include water testing and pest monitoring at the Mimi estuary with students from Mimi School, a community questionnaire based around the two estuaries and how they have changed (with over 50 questionnaires completed), and the Cultural Health Indicator (CHI) surveys which were completed at each estuary. The rest of this information will be collated prior to the final project presentation, which is intended for later in the year.
32. Further work that has stemmed from the project includes ongoing monitoring of the sediment plates by Ngāti Mutunga, and additional water testing and pest control trap clearing by Mimi School students.
33. The EVA has been used to inform recent Tuna surveys (using Mauri Compass) in both estuaries.
34. The project has also led to further research opportunities in the region, with a national research proposal involving the two estuaries, and GNS science set to work with Ngāti Mutunga to do additional sediment core analysis involving carbon dating.
35. Overall, the project was a great success for a number of reasons.
36. The project managed to engage a wide range of the community in science (i.e. whanau, Uruti, Mimi and Urenui schools, other interested members of the community and

landowners). The project participants adopted scientific techniques and were able to learn more about the health of the estuaries.

37. The project was also a very successful collaboration between Ngāti Mutunga and Council staff. All involved hope to be able to work together again in the future including the recognition and incorporation of mātauranga monitoring methods.

Decision-making considerations

38. 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

39. 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

40. 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

41. 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

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



Date 9 June 2020

Subject: **Update on Environment Court mediation on the Proposed Coastal Plan for Taranaki**

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

Document: 2449563

Purpose

1. The purpose of this memorandum is to update Members on progress with Environment Court mediation on the *Proposed Coastal Plan for Taranaki* (the Proposed Plan).

Executive summary

2. The Taranaki Regional Council (the Council) has undertaken a comprehensive consultative and engagement process as part of the full review of the Coastal Plan.
3. Following its hearing and considerations of submissions, Council publicly notified its decisions on 4 October 2019.
4. In accordance with the *Resource Management Act 1991* (RMA), submitters had 30 working days from receipt of the Council's decisions in which to lodge appeals to the Environment Court. Ten appeals were subsequently lodged with the Environment Court.
5. Nineteen parties also lodged with the Environment Court that they wish to be a party to any proceedings before the Environment Court pursuant to section 274 of the RMA. As a section 274 party, these parties must state whether they support or oppose the proceedings and have an opportunity to participate in any Environment Court mediation or other dispute resolution of the proceedings, and/or appear and call evidence at any Environment Court hearing.
6. With the lodgement of the appeals, proceedings are now governed by Environment Court processes. As part of those proceedings, officers have been involved in Court-assisted mediation under section 268 of the RMA.
7. To assist the mediation process, Council has grouped matters raised in appeals into six themes based upon the interested parties. These being: biodiversity; coastal management approach; infrastructure and industry; oil and gas; structures; and tangata whenua.

8. Topic based mediation occurred in the week of 17 February and addressed biodiversity, coastal management and parts of Infrastructure and industry in which Fonterra do not have an interest. All issues raised have so far been resolved.
9. A consent order has been agreed to between the relevant parties and filed with the Environment Court. The consent order identifies those matters resolved either by the appellant agreeing not to pursue the relevant relief, or agreed changes to the Proposed Plan as identified in the order.
10. The outcomes of these mediations, including further amendments to the Proposed Plan, are set out in Appendix I of this item.
11. A second round of mediation was scheduled to occur in the week of 23 March. However, due to health concerns around large gatherings and risks associated with COVID-19, the Environment Court has decided to defer mediation sessions until further notice.
12. Environment Court processes are therefore ongoing. Officers will continue to keep members updated on progress.

Recommendations

That the Taranaki Regional Council:

- a) receives this memorandum entitled *Update on Proposed Coastal Plan for Taranaki: Appeals*
- b) notes the progress in resolving appeals to the Proposed Plan lodged with the Environment Court.

Background

13. As Members are aware, the Council is reviewing its current *Regional Coastal Plan for Taranaki* under the *Resource Management Act 1991* (the RMA). A Proposed Plan, which was the culmination of a comprehensive consultative and engagement process including consultation on the Draft Proposed Coastal Plan, was publicly notified on 24 February 2018.
14. Sixty-one initial submissions were received on the Proposed Plan, with a further 25 submissions received in support or opposition of the initial submissions. Following pre-hearing engagement and a hearing of submissions, Council made its decisions in relation to reliefs sought by submitters and changes to the Proposed Plan. The Council's decisions were publicly notified on 4 October 2019.
15. In accordance with the RMA, submitters then had 30 working days from receipt of the Council's decisions in which to lodge appeals to the Environment Court.
16. The deadline for submitters to lodge an appeal against the Council's decision was 18 November. Ten appeals were subsequently lodged with the Environment Court. They were:
 - Climate Justice Taranaki
 - Department of Conservation
 - Fonterra
 - Ngāruahine
 - New Zealand Defence Force

- Petroleum Exploration and Production Association of NZ
 - Royal Forest and Bird Society
 - Taranaki Energy Watch
 - Transpower
 - Grant Knuckey
17. In accordance with section 274(1) of the RMA, other persons may also be a party to any proceedings before the Environment Court where they have an interest in the proceedings greater than the public generally. As a section 274 party, these parties must state whether they support or oppose the proceedings and have an opportunity to participate in any Environment Court mediation or other dispute resolution of the proceedings, and/or appear and call evidence at any Environment Court hearing.
18. The following organisations subsequently became a party to proceedings under section 274 of the RMA:
- Department of Conservation
 - Fonterra
 - New Zealand Defence Force
 - Petroleum Exploration and Production Association of NZ
 - Royal Forest and Bird Society
 - Taranaki Energy Watch
 - Greenpeace
 - Kiwis Against Seabed Mining
 - Transpower
 - Powerco
 - Oil Companies (Z Energy Ltd, BP Oil New Zealand Ltd and Mobil Oil New Zealand Ltd)
 - Spark New Zealand Limited
 - Port Taranaki Ltd
 - Trans-Tasman Resources Ltd
 - Te Kaahui o Rauru
 - Federated Farmers
 - South Taranaki District Council
 - Fishing Industry Parties (Fisheries Inshore New Zealand, NZ Rock Lobster Industry Council and Pāua Industry Council)
 - Minister of Fisheries.
19. With the appeals, many submitters (presumably comfortable with the Council's decisions) decided to re-enter the process. However, two new parties, that have not previously submitted on the Proposed Plan, also entered the process given some of the matters that are the subject of the appeal, namely the Fishing Industries Parties and the Ministry for Fisheries.

Environment Court mediation

20. With the lodgement of the appeals, proceedings are now governed by Environment Court processes. As part of those proceedings, officers have been involved in Court-assisted mediation under section 268 of the RMA.
21. To assist the mediation process, Council has grouped matters raised in appeals into six themes based upon the topics, relief sought and who is interested. These are:
 - biodiversity;
 - coastal management approach;
 - infrastructure and industry;
 - oil and gas;
 - structures; and
 - tangata whenua.
22. Topic based mediation was planned to occur in the weeks of 17 February and 23 March. However, due to health concerns around large gatherings and risks associated with COVID-19, the Environment Court has decided to defer the mediation sessions that were scheduled to occur in the week of 23 March. These mediation sessions have been deferred until further notice.

Outcomes of mediation to date

23. On 17, 18 and 20 February 2020, the following parties participated in Court assisted mediation on Topics 1 [Biodiversity], 2 [Coastal Management Approach] and 3 [Infrastructure and Industry]:
 - Royal Forest and Bird Protection Society of New Zealand Incorporated (RFB), as an appellant and a section 274 party;
 - the Minister of Conservation, as an appellant and a section 274 party;
 - the Minister of Defence, as an appellant and a section 274 party;
 - Transpower New Zealand Limited (Transpower), as an appellant and a section 274 party;
 - Federated Farmers of New Zealand (Federated Farmers), as a section 274 party;
 - Petroleum Exploration and Production Association of New Zealand (PEPANZ), as a section 274 party;
 - Port Taranaki Limited (PTL), as a section 274 party;
 - Powerco Limited (Powerco), as a section 274 party;
 - Trans-Tasman Resources Limited (TTR), as a section 274 party;
 - BP Oil Limited, Mobil Oil Limited and Z Energy Limited (Oil Companies), as a section 274 party; and
 - Taranaki Regional Council (Council), as the respondent.
24. Mediation involved representatives from the Council (as the respondent), the appellants, and relevant section 274 parties authorised to make decisions on their organisation's behalf.

25. In brief, agreement was reached on all matters covered. Transpower agreed to withdraw their appeal point in relation to Rule 22A and agreed that no changes to the Proposed Plan are needed. Likewise, the Minister of Conservation and RFB's agreed to withdraw their appeal points in relation to Rule 22.
26. Minor amendments were necessary to resolve some appeal points though. The outcomes of these mediations, including further amendments to the Proposed Plan, are set out in Appendix I of this item.
27. A consent order has been agreed to between the relevant parties and filed with the Environment Court. The consent order identifies those matters resolved either by the appellant agreeing not to pursue the relevant relief, or agreed changes to the Proposed Plan as identified in the order.

Where to from here

28. Substantial progress has been made to date in resolving appeals made on the Proposed Plan with most matters being mediated on, being resolved.
29. However, as previously noted, given health concerns around large gatherings and risks associated with COVID-19, the Environment Court has decided to defer the remaining mediation sessions (that were scheduled to occur in the week of 23 March) until further notice.
30. No date has yet been confirmed but the mediations on the unresolved matters is likely to be in the later part of the year at the earliest as the Environment Court deals with the 'backlog' of cases across New Zealand.
31. Following mediation, an Environment Court hearing may be required to address any unresolved matters.
32. After hearing appeals, the Environment Court may then direct Council to make changes to the Proposed Plan pursuant to section 293 of the RMA. Officers will continue to update Members through this part of the process.

Decision-making considerations

33. 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

34. 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

35. 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

36. 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

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

Appendix

Document number: 2451822 – Appendix to PP Coastal Plan Review Item

Appendix 1: Consent reached regarding February mediation

Topic 1 Biodiversity

Provision	Appellant	Section 274 Parties ¹	Agreement Reached ²
Policy 8: Areas of outstanding value	RFB	TTR, Federated Farmers	Amend references to "Schedule 2" to read "Schedules <u>1 and 2</u> ".
Policy 31: Structures that support safe public access and use, or public or environmental benefit	RFB	None	No change needed.
Policy 33: Hard protection structures in coastal areas of outstanding value	RFB	None	Amend "characteristics identified in Schedule 2" to read "characteristics <u>including those</u> identified in Schedule 2".
Policy 47: Taking and use of coastal water or taking of heat or energy from coastal water	RFB	None ³	No change needed.
Rule 35: Structure maintenance, minor alteration or minor extension	Minister of Conservation	RFB; Oil Companies; PTL	Add the following condition: <u>"(i) no fuelling of vehicles or machinery occurs in the coastal marine area, other than in the Port coastal management area. This restriction does not apply to ships."</u>
Rule 44: Removal and demolition of a structure	Minister of Conservation	RFB; Oil Companies; PTL	Add the following condition: <u>"(h) no fuelling of vehicles or machinery occurs in the coastal marine area, other than in the Port coastal management area. This restriction does not apply to ships."</u>
Rule 45: Removal or demolition of a structure	RFB	Minister of Conservation	No change needed.
Rule 31: Temporary military training activities	RFB	Minister of Conservation; Minister of Defence	Remove "Estuaries Unmodified" from the "Coastal management area" column.
Rule 32: Temporary military training activities	RFB	Minister of Conservation; Minister of Defence	No change needed.
Rule 33: Other drilling, structure placement or erection or temporary military training activities	RFB	Minister of Defence	No change needed.
8.6.3(c) General standards – Noise: Temporary Military Training Activities	Minister of Defence	RFB	Amend as follows: "Temporary military training activities in the coastal marine area will <u>not create noise that exceeds the following when measured 1m from any side of any building used for accommodation</u> comply with the following noise standards:

¹ PEPANZ withdrew their interest in these parts of this Topic via email on 14 February 2020.

² Agreed additions to the Proposed Plan text are identified with underlined text.

³ TTR withdrew their interest in this Policy via email on 17 February 2020.

Provision	Appellant	Section 274 Parties ¹	Agreement Reached ²
			<p>All activities excluding live weapons firing, firing of blanks, or use of explosives (<u>when measured 1m from any side of any building used for accommodation</u>): [levels unchanged]</p> <p>Noise resulting from live firing, firing of blanks, or use of explosives <u>will comply with:</u></p> <p><u>in the first instance, the following minimum separation distance; or</u></p> <p><u>where the minimum separation distance cannot be met, the following peak sound pressure limit (when measured at the notional boundary⁷ of any residential unit or other building used for a noise sensitive activity): [distances and levels unchanged]</u></p> <p>...</p> <p>Under (ii), swap the "Limits (dBC)" and "Separation distances^{7,9}" columns around.</p> <p>Change the footnotes as follows:</p> <p>⁷ Distance from any side of any building used for accommodation.</p> <p><u>⁷ A line 20 meters from any side of a residential unit or other building used for a noise sensitive activity, or the legal boundary where this is closer to such a building.</u></p> <p><u>⁸ Includes those buildings associated with living activities, educational facilities, community facilities, major healthcare activities and visitor accommodation.</u></p> <p><u>⁹ Distance from any side of any building used for a noise sensitive activity."</u></p>
Definition: Temporary Military Training Activities	Minister of Defence	None	Change "threats" to " <u>treaties</u> ".

Topic 2 Coastal management approach

Provision	Appellant	Section 274 Parties ⁴	Agreement Reached ⁵
1.4.1: Geographic extent	RFB	TTR; Federated Farmers	No change needed.
1.7: Coastal management areas	RFB	TTR; Federated Farmers	<p>Amend section 1.7.1 to read as follows:</p> <p>"1.7.1 Outstanding Value</p> <p>These are <u>the coastal</u> areas of outstanding value <u>that lie in the coastal marine area as identified in Schedule 1. They include areas that have outstanding natural</u></p>

⁴ PEPANZ and Taranaki Energy Watch Incorporated withdrew their interest in this Topic via emails on 14 and 17 February 2020 respectively.

⁵ Agreed additions to the Proposed Plan text are identified with underlined text, agreed deletions are identified with struck out text.

Provision	Appellant	Section 274 Parties ⁴	Agreement Reached ⁵
			<p>character and areas identified as having outstanding natural features and landscapes.</p> <p>These areas contain values and attributes considered exceptional based on their characteristics, including landforms, land cover, cultural and historic heritage associations and visual qualities</p> <p><u>Of note, values associated with these areas may extend onto the landward component of the coastal environment or beyond, as identified in Schedule 2."</u></p>
Policy 1: Coastal management areas	RFB	TTR; Federated Farmers	No change needed
Policy 4: Extent and characteristics of the coastal environment	RFB	PTL	No change needed
Section 6: Methods of implementation	Minister of Conservation	RFB	In section 9, change "Note: The Council is not operating a charging regime for occupation of the coastal area" to " <u>Note: The Council has decided not to include a charging regime in the Coastal Plan at this time</u> "
Section 9.1.8: General - environmental compensation	RFB	PTL ⁶	<p>Remove "and environmental compensation" from the heading to section 9.</p> <p>Replace section 9.1.8 with:</p> <p><u>"9.1.8 Positive effects to offset adverse effects on the environment</u></p> <p><u>Purpose: To protect, restore and/or enhance natural and physical resources and/or amenity values elsewhere in the coastal environment in the same general locality where an activity will have adverse effects that will not be adequately avoided, remedied or mitigated, or otherwise to ensure positive effects on the environment to offset any adverse effect."</u></p> <p>Change Policy 5(j)(iii) to:</p> <p><u>"the efficacy of measures to avoid, remedy or mitigate such effects, or provide environmental compensation where effects cannot be avoided, remedied or mitigated.</u></p>
Definitions: Heritage values	RFB	None	<p>Change the definition to:</p> <p>"Heritage values mean any cultural, traditional, aesthetic, <u>natural</u> or other value related to the past."</p>

⁶ At mediation, PTL signalled an intent to join RFB's appeal on this provision as a late section 274 party. RFB and TRC confirmed that they would consent to such an application. PTL filed a section 274 notice and associated waiver application in relation to this appeal point on 24 February 2020.

Topic 3 Infrastructure and industry

Provision	Appellant(s)	Section 274 Parties	Agreement Reached ⁷
Policy 6: Benefits of regionally important infrastructure	Transpower	Minister of Conservation; RFB	<p>Change Policies 6 and 6A as follows:</p> <p>"Policy 6: Benefits of regionally important infrastructure</p> <p><i>Recognise the benefits of new and existing regionally important infrastructure to the social, economic and cultural well-being of people and communities in Taranaki and, provide for the safe and efficient operation of regionally important infrastructure subject to the appropriate avoidance, remediation or mitigation of adverse environmental effects, <u>provide for the safe and efficient operation and development of regionally important infrastructure.</u></i></p> <p>Policy 6A: Management of adverse effects of the National Grid</p> <p><u>Recognise and provide for the benefits of the National Grid.</u></p> <p><i>Where the National Grid has a functional need or operational need to locate in the coastal environment, manage the adverse effects arising from their activities by: ..."</i></p>
Policy 37: Major alteration or extension of existing structures	RFB	Minister of Conservation; PEPANZ; PTL	<p>Amend Policy 37 to read as follows:</p> <p><i>"Major alteration or extension of existing lawful structures will be allowed in locations where the activity will not have significant adverse effects on other lawfully established structures or uses and values subject to appropriate avoidance, remediation or mitigation of adverse effects, and must:</i></p> <ul style="list-style-type: none"> (a) <i>result in greater, more efficient, or multiple use of the structure for marine activities; or</i> (b) <i>reduce the need for a new structure elsewhere."</i>
Policy 38: Removal of coastal structures	Minister of Conservation; RFB	Minister of Conservation; RFB; PTL; PEPANZ	<p>Change Policy 38(c) and (d) to:</p> <p><i>"(c) the structure, or part of the structure, is permanent or has reuse value that is considered appropriate in accordance with Policy 5; designed for permanence, and has:</i></p> <ul style="list-style-type: none"> <i>• <u>ongoing use value to the applicant;</u></i> <i>or</i>

⁷ Agreed additions to the Proposed Plan text are identified with underlined text, agreed deletions are identified with struck out text.

Provision	Appellant(s)	Section 274 Parties	Agreement Reached ⁷
			<ul style="list-style-type: none"> • <u>reuse value that is considered appropriate in accordance with Policy 5;</u> (d) <u>the removal of the structure is technically unfeasible not technically feasible based on:</u> <ul style="list-style-type: none"> • <u>applicable regulations, standards, guidelines; or</u> • <u>recognised industry best practice; or</u>.
Rule 18: Placement or erection of an outfall structure	RFB	Minister of Conservation	<p>Remove "Outstanding Value" and "Estuaries Unmodified" from the "Coastal management area" column.</p> <p>In condition (g), change "one working day" to "<u>five working days</u>"; and move condition (g) to the top of the list of conditions (as condition (aa)).⁸</p> <p>Replace condition (d) with:</p> <p><u>"(da) in Estuaries Unmodified, the activity does not involve the placement or erection of an outfall structure within 50 m of any other outfall structure in the coastal marine area."</u></p> <p>Create a new Rule 18A, that applies in all coastal management areas, with discretionary activity status for:</p> <p><u>"Placement or erection of an outfall structure and any associated:</u></p> <ul style="list-style-type: none"> (a) <u>occupation of space in the common marine and coastal area;</u> (b) <u>disturbance of the foreshore or seabed;</u> (c) <u>deposition in, on or under the foreshore or seabed; and</u> (d) <u>discharge of sediment;</u> <p><u>that does not come within or comply with Rule 18."</u></p>
Rule 20: Placement or erection of a mooring structure	RFB	TTR	Mediation on this provision to recommence in the week of 23 March 2020.

⁸ For consistency and as consequential amendments, conditions requiring people to inform the TRC of activities will be moved to the top of lists of conditions throughout the Proposed Plan.

Provision	Appellant(s)	Section 274 Parties	Agreement Reached ⁷
Rule 22: Placement or erection of a network utility structure	Minister of Conservation; RFB	Minister of Conservation; Powerco; RFB; Spark New Zealand Trading Limited; ⁹ Transpower	No change needed.
Rule 22A: Placement or erection of a network utility structure	Transpower	Powerco	No change needed.
Rule 37: Maintenance, alteration or extension of a network utility structure	RFB	Powerco	No change needed.
Rule 51: Clearance of outfalls, culverts and intake structures	RFB		No change needed.

⁹ Spark New Zealand Trading Limited did not attend mediation as a result of being notified by email on 18 February 2020 that the Minister of Conservation and RFB no longer intend to pursue their appeal points in relation to this provision.



Date 9 June 2020

Subject: **Tai Whenua, Tai Tangata, Tai Ao**

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

Document: 2446232

Purpose

1. The purpose of this memorandum is to present for the Members information an Iwi management plan recently produced by the Te Kotahitanga o Te Atiawa Trust entitled *Tai Whenua, Tai Tangata, Tai Ao. Te Atiawa Iwi Environment Management Plan 2019* (the Plan).
2. The Plan will be presented to the meeting by a Te Atiawa representative.

Executive summary

3. Four iwi management plans have been completed and presented to the Council by the respective iwi of Taranaki over the last ten years. We also understand that Te Runanga o Ngāti Mutunga are close to finalising the review of their environmental plan.
4. On Tuesday 25 February Te Kotahitanga o Te Atiawa Trust launched the Plan to the Regional and District Councils within its rohe (area). The Plan represents the views of Te Atiawa with regards to the environment and resource management. The Plan is a working document for Te Atiawa Iwi to guide and inform decision making by the iwi, hapū, marae, pā and whānau as kaitiaki of the Te Atiawa Iwi rohe.
5. The Plan is formally recognised under the Resource Management Act 1991 (RMA) and must be taken into account when reviewing Taranaki Regional Council (the Council) policy and planning documents. It is also intended for use by those individuals or organisations that want to develop and use the natural resources in the Te Atiawa Iwi rohe.
6. The Council welcomes the release of the Plan as a positive step forward in clarifying the policy position of Te Atiawa Iwi on a range of environmental and other matters. As new environmental and resource management issues emerge Te Kotahitanga o Te Atiawa Trust will remain flexible and update and review the Plan as appropriate.
7. Te Atiawa will also hold workshops for Council staff to attend, to explain the guiding principles, values, cultural expertise and the practical implementation of the Plan.

Recommendations

That the Taranaki Regional Council:

- a) receives the memorandum and the Tai Whenua, Tai Tangata, Tai Ao, Te Atiawa Iwi Environmental Management Plan (2019);
- b) notes that the Plan outlines the expectations and the position of Te Atiawa Iwi on matters relating to the environment in their rohe;
- c) notes that the Plan will be taken into account during the review of the Council's Resource Management Act policy documents concerning air, freshwater, soil and coastal resources; and
- d) recognises that the Plan is a positive step forward in clarifying the policy position of Te Atiawa Iwi on environmental matters.

Background

8. The Resource Management Act 1991 (RMA) requires regional councils to take into account any relevant planning document recognised by an Iwi Authority when developing or amending policy statements and plans (Sections 64 and 66). These documents are commonly referred to as Iwi Management Plans.
9. Part 2 of the RMA requires the interests of tangata whenua to be considered in achieving the sustainable management of natural and physical resources. In particular, Section 6(e) recognises Māori interests as a matter of national importance to be recognised and provided for, while Section 7(a) requires the Council to have particular regard to kaitiakitanga, and Section 8 allows for the principles of the Treaty of Waitangi to be considered in the Council's exercise of functions and powers in relation to managing the use, development, and protection of natural and physical resources.
10. Four of the eight iwi of Taranaki have produced and released Iwi Management Plans. Te Runanga o Ngāti Ruanui released their plan in December 2012, Ngaa Rauru Kiihahi released a revised version of their 2009 plan on the 11 September 2013, Te Kāhui o Taranaki Iwi Trust released their plan on 17 July 2019 and Te Kotahitanga o Te Atiawa Trust (to which this memorandum relates) has just released its plan. Te Runanga o Ngāti Mutunga is in the process of finalising the last sections of their plan with a view to a release later this year.
11. All the Iwi Management Plans are presented to the Council. Senior Council officers provided feedback on a draft and this and others contributions were acknowledged at the launch.

The Iwi Management Plan

12. On 25 February at the PKW House in New Plymouth, Te Kotahitanga o Te Atiawa Trust introduced the Plan to the regional and district councils and others. The release was attended by the Chief Executive and senior Council staff members as well as officials from New Plymouth District Council and Stratford District Council.
13. The key components of the Plan are:

Section 1: Timatanga - Introduction

14. The Plan is an expression of rangatiratanga and kaitiakitanga from Te Atiawa over the environmental and cultural resources within the rohe of Te Atiawa.
15. The Plan is a guide to assist central government agencies, regional council and district councils to understand the issues of significance to Te Atiawa and manage all resource consent processes, policies, plan development, reviews and changes to, in a way which affirms Te Atiawa values and interests.

Section 2: Te Atiawa Iwi

16. Identifies who Te Atiawa are, the area of interest, hapū, marae, and the Iwi authority.

Section 3: Ngā Whanonga me ngā Mātāpono – Te Atiawa guiding principles

17. These principles provide the foundation for and underpin Te Atiawa's requirement for environmental management:
 - Whakapapa – connection
 - Rangatiratanga – authority
 - Kaitiakitanga – active stewardship, guardianship
 - Mauri – life essence
 - Wairuatanga – spirituality
 - Wāhi tapu/wāhi taonga, urupa, and sites of significance to Māori – connection to place
 - Mahinga kai – food gathering sites
 - Mai te Taranaki Maunga ki uta ki tai – connection between the mountain and its relationship to the marine environment.
 - Manaakitanga – respect and duty of care
 - Kotahitanga – unity of purpose
 - Te Atiawatanga – identity
 - Mahi tahi – collaboration.

Section 4: He Anga Pārongo – Te Atiawa framework for engagement

18. This section outlines how Te Atiawa seek to be involved in central government and regional and district council processes as well as describing their expectations for engagement with these entities.

Section 5: Te Atiawa me Taiao – Te Atiawa and Resource Management

19. This section identifies the statutory framework and entities for engagement, relevant for the Plan. It also includes a description of planning and monitoring tools that Te Atiawa will use to assist with the exercise of kaitiakitanga.

Section 6: Ngā Take, Ngā Paetae, me Ngā Kaupapa – Issues, Objectives and Policies

20. This section identifies the issues, objectives, policies and methods for addressing environmental and cultural resources of importance to Te Atiawa.
21. The first two sections describe the aspirations and areas of interest for Te Atiawa Iwi, thus setting the context of the Plan. The following sections outline the overarching framework for achieving the aspiration and addressing the concerns of Te Atiawa. The Plan also provides a guide to process resource consent applications and enquiries, and an estimate of costs that may be involved.
22. Members will be aware of the Mana Whakahono a Rohe (iwi relationship agreements) discussions that are currently underway between iwi and regional and district councils senior staff. These agreements will address iwi input to resource consents and policy, and provide appropriate resourcing. Discussions on this are ongoing with the next meeting in late March.

Implications for the Council

23. The Council supports the release of the Plan and its future use by Council staff and members of the public as a starting point for discussions with Te Atiawa Iwi regarding the use of resources in their rohe.
24. The Plan will be used to inform future discussions with Te Atiawa regarding resource management matters including the review of the freshwater and land plans. The Plan will also inform discussions on the review of the regional policy statement and air quality policy documents.
25. The goals and values reflected in the Plan largely complement what the Council is trying to achieve in respect of the environment for the Taranaki region. Operational type policies provided in the Plan set out detailed guidance that will be taken into account in the review of the freshwater and land plans and ultimately when making decisions on resource consent applications once the plan review process is completed.
26. The non-RMA components of the Plan will be of interest to the Council, but will not be considered as part of taking into account the Plan provisions when reviewing RMA policy.

Decision-making considerations

27. 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

28. 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

29. 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

30. 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.
31. The Council supports the release of the Plan and its future use by Council staff and members of the public as a starting point for discussions with Te Atiawa Iwi regarding the use of resources in their rohe.
32. The Plan will be used to inform future discussions with Te Atiawa regarding resource management matters including the review of the freshwater and land plans. The Plan will also inform discussions on the review of the regional policy statement and air quality policy documents.
33. The goals and values reflected in the Plan largely complement what the Council is trying to achieve in respect of the environment for the Taranaki region. Operational type policies provided in the Plan set out detailed guidance that will be taken into account in the review of the freshwater and land plans and ultimately when making decisions on resource consent applications once the plan review process is completed.
34. The non-RMA components of the Plan will be of interest to the Council, but will not be considered as part of taking into account the Plan provisions when reviewing RMA policy.

Legal considerations

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

Appendices/Attachments

Document 2439033: Tai Whenua, Tai Tangata, Tai Ao. Te Atiawa Iwi Environmental Management Plan 2019



TAI WHENUA, TAI TANGATA, TAI AO

TE KOTAHITANGA O
TE ATIAWA
TARANAKI

**ENVIRONMENTAL
MANAGEMENT PLAN**

VERSION CONTROL

VERSION	DATE	DESCRIPTION
1.1	08/12/2019	Printed version for launch
1.2	25/02/2020	Corrections and formatting updates

HE KUPU WĀWĀHI – FOREWARD

KO NGĀ TAI

I tupu i te pō, i kune i te pō, i weu i te pō, i aka i te pō, i tāmore i te pō
ka tupuria, ka tupuria
Kei te whakawiniwini ngā tai o te pō,
Kei te whakawanawana ngā tai o te ao mārama
Kei te whakarurutu ngā tai o pupuke
Ko Manatū ki te rangi
Ko Rēnau ka tupu te puke i waenga
Ko Rongo, Ko Tū, Ko Rū, Ko Uoko, Ko Tahu, Ko Ari, Ko Tikimaru
Motuwhāriki, Tiki i Hawaiki
Ko Tāne Ruanuku, Tāne Tokorangi
Ka mārama te ao, ka wehe a Rangi i a Papa
Kei hauarangi ko tai o Ranginui e tū nei,
Kei te ata ka ngahae ko te tai o Rongo,
Kei te hirere ko tai o te wai,
Kei te paremo ko tai o te kōhatu,
Kei te kotokoto ko tai o te kiore,
Kei te pakihi ko tai o te mouku,
Kei te wāwā ko tai o te harakeke,
Kei te toto ko tai o te tutu,
Kei te mania kei te wheeke ko tai o te rākau,
Kei te korihi kei te waraki ko te tai o te manu,
Kei te pato ko tai o matua huhu nana i kai whao te takere o Tahatuna
Kei te puhana, kei te puhana ko tai o te ahi,
Kei te whiriko karere ki roto ki te rākau kei te rorowhio ko te tai o te matangi,
Kei te matiti kei te matata ko te tai o maru,
kei te rito i waho ko te tai o te atua,
Kei te tuhi kei te rapa kei te hana i te uira,
Kei te aniwaniwa kei te aheihei ko tai o Tamarau whakapiri ki te hemahema ka heke ki raro ki te ihorangi...
ka heke, ka heke
Ko te tini o Awanui a rangi

HE KUPU WĀWĀHI – FOREWARD

THE GENEALOGICAL TREE OR WAHA A TAI, PRESENTED ON THE PREVIOUS PAGE DEMONSTRATES THE DRAWING TOGETHER OF BOTH THE SPIRITUAL AND TEMPORAL MANIFESTATIONS OF WHICH THE DESCENDANTS OF TE ATIAWA (THROUGH HIS PARENT TAMARAU) ARE THE CENTRAL FIGURE.

The Te Atiawa tribe emanates from the cosmogenic tree of the gods. Down from the celestial realms to the cosmic emanations of divine beings, the world and its creations, the evolution of earth and humankind, down through the generations to the immediate assembly of elders. In this respect, it may be considered that the Te Atiawa people are both the progeny of divine and human parentage.

It is therefore critically important, that our responsibility to the environment and local ecology be understood through this connection, but more importantly it demonstrates the tribes position in relating ourselves to the taiao (or natural environment) to a particular beginning. From the conditions related to absolute darkness, through to the centuries and generations of glimmering life. Elemental Gods then faintly emerged into time whereby the essence of the natural environment comes all living things; the birds, the bees and the trees, the animals and all mammalian life.

Tai Whenua, Tai Tangata, Tai Ao is principally an extension of our responsibility to maintain the essence of this genealogy. It allows us to reaffirm our role as kaitiaki and to plan how we manage our relationship with each other. Secondly, it is a guide to assist others to understand the matters of significance to Te Atiawa and guide a set of tikanga (behaviours) through the regulatory system to incorporate Te Atiawa values and interests.

Tai Whenua, Tai Tangata, Tai Ao is the first of what will be many iterations, to ensure that our tikanga are relevant and responsive to an ever changing environment.

Tai Whenua, Tai Tangata, Tai Ao should not be a replacement for face to face dialogue with us, including our hapū and marae. Rather, local and central government, developers and other applicants are encouraged to use this document to inform project discussions with Te Atiawa.

We look forward to working directly with the community, regulatory authorities and other agencies on influencing a more collaborative approach to resource management and protection of our taiao.



Hemi Sundgren

Pouwhakahaere / Chief Executive
Te Kotahitanga o Te Atiawa Trust

December 2019



TŪTOHUNGA – ACKNOWLEDGEMENTS

KO NGĀ TAI

Tai Whenua, Tai Tangata, Tai Ao was developed by Te Kotahitanga o Te Atiawa Trust with hapū, whānau and uri of Te Atiawa Iwi.

Te Kotahitanga would like to extend a special thank you to Ngā Hapū o Te Atiawa for their gift of knowledge, experience and time. This group consisted of the following hapū members:

- Donna Eriwata
- Patsy Bodger
- Moana Denness
- Haydn Te Ruki
- David Toa
- Julie Healey
- Susan Keenan
- Philippa Fairclough
- Anaru Wilkie
- Fern Brand
- Hoani Eriwata
- Ngamata Skipper
- Cordelle Rei
- Mary-Jane Waru
- Kris Marsh
- Keith Holswich
- Ānaru White
- Kura Niwa

We would also like to acknowledge many of our whānau who provided feedback and information during the development of *Tai Whenua, Tai Tangata, Tai Ao*.

A very special thanks to Sera Gibson whose dedication to hours of engagement and drafting was significant and Sean Zieltjes for technical planning advice.

Lastly, Te Kotahitanga would like to acknowledge New Plymouth District Council, the Department of Conservation and Taranaki Regional Council for their contributions towards the publication and printing of *Tai Whenua, Tai Tangata, Tai Ao*.

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1. HE WHAKAPUAKITANGA - INTRODUCTION

Ko Te Atiawa nō runga i te rangi, te toki tē tangatanga i te rā

*Te Atiawa of divine origins, undivided like the adze whose bindings
cannot be loosened by the heat of the sun*

TE ATIAWA IWI ARE TANGATA WHENUA (PEOPLE OF THE LAND) OVER THE LANDS, WATERS, TAONGA SPECIES (IMPORTANT SPECIES), WĀHI TAPU/WĀHI TAONGA (HISTORIC HERITAGE), URUPĀ (BURIALS) AND SITES OF SIGNIFICANCE TO MĀORI WITHIN OUR TE ATIAWA ROHE (AREA OF INTEREST). THE TE ATIAWA ROHE EXTENDS FROM TE RAU O TE HUIA ALONG THE COAST TO THE HEREKAWĒ STREAM, INLAND TO TAHUNA-A-TŪTAWA, EAST TO WHAKANGERENGĒ, NORTHEAST TO TARAMOUKOU, NORTH BACK TO TE RAU O TE HUIA AND OFFSHORE OUT TO 200 NAUTICAL MILES (SEE MAP 1.1).

Te Atiawa has strong historical, cultural and spiritual connections within this area, our environment is a part of who we are. In return, we as kaitiaki (guardians), have the responsibility of ensuring the mauri (life-force) of these environmental and cultural resources is protected and enhanced for future generations.

1.1 TE ARONGA O TE TAI WHENUA, TAI TANGATA, TAI AO - PURPOSE OF TAIWHENUA, TAI TANGATA, TAI AO

Tai Whenua, Tai Tangata, Tai Ao is the Te Atiawa Iwi Environmental Management Plan. It is an expression of rangatiratanga (right to exercise authority) and kaitiakitanga (guardianship) from ngā uri o Te Atiawa (descendants of Te Atiawa) over the environmental and cultural resources within our Te Atiawa rohe.

Tai Whenua, Tai Tangata, Tai Ao is a written statement by Te Atiawa that identifies issues regarding the use of environmental and cultural resources of significance to Te Atiawa. It sets the objectives, policies and in some instances methods for achieving the sustainable and culturally appropriate management of these resources.

Tai Whenua, Tai Tangata, Tai Ao is principally an environmental and resource planning document to reaffirm Te Atiawa's role as kaitiaki. Secondly, it is a guide to assist central government agencies, regional and district councils to understand the issues of significance to Te Atiawa and manage all resource consent processes, policies, plan development, reviews and changes in a way which affirms Te Atiawa values and interests.

In accordance with the Resource Management Act 1991 (RMA) central government agencies, regional and district councils and any other consenting authority must take into account iwi planning documents that are endorsed by iwi authorities when preparing or changing Regional Policy Statements, and regional and district plans.

Tai Whenua, Tai Tangata, Tai Ao seeks to enable central government agencies, regional and district councils and any other consenting authority to:

- Acknowledge and provide for the relationship of Te Atiawa with the whenua, waters, taonga species, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe and by doing this meeting statutory obligations under the Resource Management Act 1991, Te Atiawa Deed of Settlement 2014, and Te Atiawa Claims Settlement Act 2016;
- Acknowledge Te Atiawa's interest in environmental management - what is important and why;
- Engage and consult with Te Atiawa on almost all aspects of central government, regional and district councils resource management functions (see Section 4) for He Anga Pārongo - Te Atiawa Framework for Engagement); and
- Acknowledge Te Atiawa values in all resource management decision making processes.

1.2 NGĀ POU O TE TAI WHENUA, TAI TANGATA, TAI AO - MANAGEMENT AND ADMINISTRATION OF TAI WHENUA, TAI TANGATA, TAI AO

Tai Whenua, Tai Tangata, Tai Ao is jointly managed and administered by Te Kotahitanga o Te Atiawa Trust (Te Kotahitanga) and Ngā Hapū o Te Atiawa Iwi.

Te Kotahitanga and Ngā Hapū o Te Atiawa represent the interests of ngā uri o Te Atiawa and therefore the term 'Te Atiawa' is used throughout *Tai Whenua, Tai Tangata, Tai Ao*. Te Kotahitanga and Ngā Hapū o Te Atiawa are also referred to within *Tai Whenua, Tai Tangata, Tai Ao* where the context requires specificity. However it is important to note that engagement with Te Kotahitanga does not usurp the mana of Ngā Hapū o Te Atiawa or the need to engage with Ngā Hapū o Te Atiawa. Therefore, Te Kotahitanga and Ngā Hapū o Te Atiawa require that dual notification with both Te Kotahitanga and the relevant Te Atiawa hapū is undertaken (see Section 4.3 for Dual Notification Process).

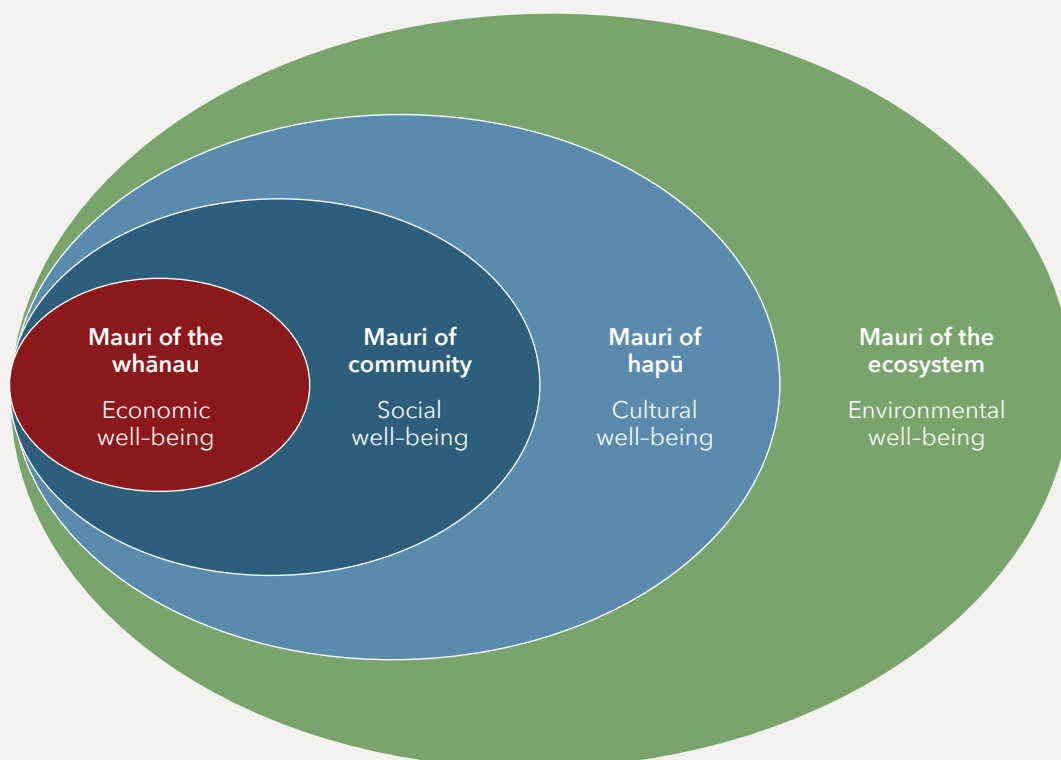
The origins of Te Kotahitanga and Ngā Hapū o Te Atiawa are described in Section 2 and Section 4 sets out Te Atiawa's framework for engagement with both Te Kotahitanga and the relevant Te Atiawa hapū.

1.3 TAI WHENUA, TAI TANGATA, TAI AO - OUR PLAN

EMPOWERING AND SUSTAINING OUR CONNECTION TO PEOPLE, PLACE AND ENVIRONMENT'

The vision and the name *Tai Whenua, Tai Tangata, Tai Ao* acknowledges the intricate and reciprocal relationship that Te Atiawa has with the land, the people and the environment. We are integral parts of the wider ecosystem. Our well-being is dependent on basic necessities which are provided directly or indirectly through this. However, we not only depend on the ecosystem, we influence it directly through use and development.

Figure 1.1 below illustrates the relationship and overlap between our environment, social, cultural and economic well-being.



Traditionally, our Te Atiawa rohe was rich in natural resources providing our people with food, medicines, and materials that were used for a range of domestic, artistic and ceremonial purposes. However, residential, urban, intensive agricultural, and diverse industrial, commercial and developmental use has led to degradation and in some places total loss of the environment and its mauri. This has implications on the social, cultural and economic well-being of our people.

The health of the ecosystem has a direct influence on the health and well-being of our people. Pollution, deforestation, introduction of pests, depletion of finite and natural resources, loss of land, loss of kaimoana, marine mammals, flora and fauna and limited access to natural and physical resources are all destabilising factors on our health and well-being.

Te Atiawa's world view acknowledges the natural order of the universe, a balance or equilibrium. As kaitiaki of our rohe, Te Atiawa seek to achieve *Tai Whenua, Tai Tangata, Tai Ao*'s vision by continuing to consider the needs of our environment, ensuring balance is maintained. When parts of this system shift through environmental degradation, the entire system is unharmonious and lacks stability. The diversity of species within the ecosystem is formalised through our whakapapa (genealogy) and the interrelationship of all living beings as dependent on each other, and therefore we seek to ensure the entire system is healthy.

Our vision resonates strongly in the following whakatauki (proverb):

'E tangi ana nga reanga o uta, e mahara ana ngā reanga a tai

mā ta aha rā e whakamahana ai taku ora kia tina.

He kawenga ki te whenua, ki ngā uri o Kāhui Pō me Te Kāhui Ao.

Ko ahau Ko Tai whenua, Ko Tai tangata, Ko Tai ao, ko Ko Tai whenua, Ko Tai tangata, Ko Tai ao, ko ahau.

Whakarongo, whakarongo, whakarongo ki te tangi o te manu e karanga nei; tui, tui, whiti, whiti ora.'

'When our environmental eco-systems are in distress, our confidence and identity is affected.

It is our responsibility to maintain this relationship, the balance and natural order of all life

The ecosystem defines my quality of life.

*Listen to the cry of the birds calling for unity.'*⁴

1.4 NGĀ HONONGA KI ĒTAHI ATU MAHERE – RELATIONSHIP WITH OTHER PLANNING DOCUMENTS

Tai Whenua, Tai Tangata, Tai Ao is part of a larger network of planning documents. *Tai Whenua, Tai Tangata, Tai Ao* is the voice of Te Atiawa and will be applied in conjunction with all Legislative and Regulatory plans, policies and documents, including: National Policy Statements, Regional Policy Statements, plans, strategies, management plans and bylaws from the Taranaki Regional Council, New Plymouth District Council, Stratford District Council, Department of Conservation, Ministry for the Environment, Heritage New Zealand Pouhere Taonga and any other consenting authority. The relationship of *Tai Whenua, Tai Tangata, Tai Ao* with other plans and the statutory framework that forms the basis for the preparation for these plans is explained in detail in Section 5.1

Tai Whenua, Tai Tangata, Tai Ao also sits alongside existing Iwi Management Plans in the Taranaki region. Including:

- Ngāti Ruanui Environmental Management Plan (2012);
- Ngāa Rauru Kaitiaki Puutaiao Management Plan (2013);
- Ngāti Mutunga Iwi Environmental Plan (2016); and
- Taranaki Iwi Taiao, Taiora Iwi Environmental Management Plan (2018)

Tai Whenua, Tai Tangata, Tai Ao is the principal environmental and resource planning document for Te Atiawa as identified in Section 1.1 of *Tai Whenua, Tai Tangata, Tai Ao*.

⁴Hamsworth et al.

https://www.landcareresearch.co.nz/_data/assets/pdf_file/0007/77047/2_1_Hamsworth.pdf

1.5 TE WHAKATIPU TE MAHERE - DEVELOPMENT OF THE TAI WHENUA, TAI TANGATA, TAI AO

The process for developing *Tai Whenua, Tai Tangata, Tai Ao* was as important as the outcome. Input was sought from Ngā Hapū o Te Atiawa and ngā uri o Te Atiawa, and key stakeholders Taranaki Regional Council, New Plymouth District Council, Stratford District Council and Department of Conservation on environmental issues and how these may be addressed through policy.

The following methods were used to develop *Tai Whenua, Tai Tangata, Tai Ao*:

- A review of existing information;
- A series of review sessions with Ngā Hapū o Te Atiawa; and
- On-line engagement with ngā uri o Te Atiawa.

1.6 TE WHAKAMAHINGA I TE TAI WHENUA, TAI TANGATA, TAI AO - HOW TO USE TAI WHENUA, TAI TANGATA, TAI AO

TAI WHENUA, TAI TANGATA, TAI AO IS DIVIDED INTO SIX SECTIONS WITH THE INTENTION OF BEING APPLIED IN CONJUNCTION WITH OTHER LEGISLATION. THEY ARE:

Section 1: Timatanga - Introduction: This section identifies Te Atiawa's vision and values. It also identifies the purpose of *Tai Whenua, Tai Tangata, Tai Ao*, its development and relationship to other plans, and explains how to use it.

Section 2: Te Atiawa Iwi: This section introduces Te Atiawa and provides a historical narrative of our origin as it relates to our environmental and cultural resources within our Te Atiawa rohe.

Section 3: Ngā Whanonga Me Ngā Mātāpono - Te Atiawa Guiding Principles: This section provides an overview of Te Atiawa tikanga and kawa (principles and values) which is the foundation for *Tai Whenua, Tai Tangata, Tai Ao*.

Section 4: He Anga Pārongo - Te Atiawa Framework for Engagement: This section provides an overview of the cultural framework for Te Atiawa's approach to environmental management, and the legal framework for Te Atiawa's participation in resource management. It sets out Te Atiawa's core principles of engagement that will enhance partnerships and decision-making

Whilst *Tai Whenua, Tai Tangata, Tai Ao* is a statement of values and policy it does not replace kanohi ki te kanohi (face-to-face) dialogue between applicants and Te Atiawa for resource management matters. Section 4 sets out Te Atiawa's framework for engagement with Te Kotahitanga and Ngā Hapū o Te Atiawa.

Section 5: Te Atiawa me Ngā Rawa Taiao - Te Atiawa and Resource Management: This section sets out the legal framework which provides for Te Atiawa participating in resource management, and planning and monitoring tools that we, as kaitiaki, utilise to monitor and manage our environmental and cultural resources.

Section 6: Ngā Take, Ngā Paetae me Ngā Kaupapa - Issues, Objectives and Policies: This section provides the policies for management of our environmental and cultural resources. The policy statements are presented as issues, objectives, policies and in some instances methods. Issues are matters which could affect resources and taonga that are important to Te Atiawa and our tikanga. Known issues that already exist should be resolved (via the methods contained in this section) in order to avoid (rather than remedy or mitigate) affecting resources that are important to Te Atiawa and our tikanga. Policies and methods are directions and actions which should be followed in order to resolve the issues identified in a way which is consistent with Te Atiawa tikanga. We encourage resource managers to adhere to these policies and methods in order to resolve the issues identified in *Tai Whenua, Tai Tangata, Tai Ao*.

Schedules and appendices identifying the environmental and cultural taonga that are important to Te Atiawa and additional information to support *Tai Whenua, Tai Tangata, Tai Ao* are provided in Section 7 and Section 8.

1.7 HE WHAKATAKOTORANGA KUPU - POLICY TERMINOLOGY

THE FOLLOWING POLICY TERMS ARE USED WITHIN TE ATIWA POLICIES TO ADDRESS ISSUES WE HAVE IDENTIFIED (SEE SECTION 6 FOR ISSUES, OBJECTIVES AND POLICIES). THESE TERMS ARE DEFINED HERE TO ASSIST USERS OF TAI WHENUA, TAI TANGATA, TAI AO:

OPPOSE

An activity or action that must not occur.

REQUIRE

An action or activity that must be carried out by another organisation and/or the applicant.

PROMOTE

The action or activity will be endorsed by Te Atiawa. We will work in collaboration with other agencies to promote Te Atiawa values associated with this action or activity.

ENCOURAGE

An action or activity, to be carried out by other agencies, which is supported by Te Atiawa.

DISCOURAGE

An action or activity which is generally not supported by Te Atiawa.

IDENTIFY

An action or activity which we will work independently or in collaboration with other agencies to carry out.

SUPPORT

An action, activity, policy or rule which is already in place and is encouraged by Te Atiawa. We encourage implementation, and in some cases, intensification of these actions, activities, policies and rules by other agencies.

AVOID

Te Atiawa note that the Resource Management Act 1991, and planning documents developed under the RMA, require that people "avoid, remedy or mitigate" adverse effects of their activities on the environment. However, we advocate for avoidance rather than remedial or mitigation actions in the first instance and encourage central government agencies, regional and district councils, and other bodies operating under the RMA, to require that applicants avoid adverse effects on the environment, in the first instance.

1.8 AROTAKENGA - REVIEW PERIOD

TAI WHENUA, TAI TANGATA, TAI AO SETS THE FOUNDATION FOR ENVIRONMENTAL MANAGEMENT WITHIN OUR TE ATIWA ROHE FOR THE NEXT 10 YEARS.

Tai Whenua, Tai Tangata, Tai Ao is a living document. *Tai Whenua, Tai Tangata, Tai Ao* responds to all environmental matters that are important to Te Atiawa, however to ensure consistency with the regulatory environment amendments, changes may be required during the life of *Tai Whenua, Tai Tangata, Tai Ao*. Thus Te Atiawa reserves the right to undertake a review that may result in amendments to *Tai Whenua, Tai Tangata, Tai Ao* at any stage through the life of *Tai Whenua, Tai Tangata, Tai Ao*.

1.9 TE WHAKATINANATANGA - IMPLEMENTATION OF TAI WHENUA, TAI TANGATA, TAI AO

Tai Whenua, Tai Tangata, Tai Ao is operative as at the publication date of this document. Te Atiawa have adopted *Tai Whenua, Tai Tangata, Tai Ao* and implemented the measures identified within it.





2. HE KUPU TAKETAKE – TE ATIWA IWI

THE EARLIEST ACCOUNTS ASSOCIATED WITH OUR TE ATIWA ANCESTORS PRECEDE THE COMING OF TARANAKI MAUNGA TO THE WESTERN SEABOARD. WE WERE KNOWN AS THE KĀHUI PEOPLE, SOME OF WHICH WERE KNOWN AS TE KĀHUI AO, KĀHUI RANGI, KĀHUI PŌ, KĀHUI ĀTUA AND KĀHUI TOKA COLLECTIVELY CALLED TE KĀHUI MAUNGA. TE KĀHUI MAUNGA OCCUPIED THE MOUNTAIN RANGES OF TARANAKI, POUĀKAI AND KAITAKE AND VARIOUS PLACES ALONG THE NORTHERN TARANAKI COAST.

The journey of Taranaki Maunga from the central plateau has been recounted for centuries. It is an account that describes cataclysmic volcanic activity and the movement of our people.

The settlement of Taranaki is best described in two eras. The Kāhui people established knowledge systems in and around the wider Taranaki area. They held mana over the lands and gave meaning to many of the Kāinga along the coast. When we arrived from Hawaiki, marriages soon produced a mix of Kāhui Maunga and our people. The influx of our people also created tension and many conflicts ensued. The key marriages however, have become the source of dual identity for Te Atiawa and other Taranaki iwi today.⁵

Tamarau, Rongoueroa and Awanuiarangi are recognised as our paramount and principal ancestors for Te Atiawa. It is from these ancestors (among others) that ngā uri o ngā tūpuna o Te Atiawa trace descent.

HE ARA WHAKAPIKI ORA - FROM RAUPATU TO RESTORATION

Traditionally, the volcanic soil, plentiful fresh water, and rich marine life of our Te Atiawa rohe provided our people with food resources, medicines, and materials that were used for a range of domestic, artistic and ceremonial purposes.

Today, many of our people feel that our ability to enjoy, protect and enhance these natural resources has been severely limited by Crown actions. The access to rivers, lakes, forests, swamps, the coast, and all of the associated resources, has been severely affected by the historic confiscation and large scale alienation of Te Atiawa lands.

The ability of Te Atiawa to enjoy, protect and enhance natural resources has also been diminished by various forms of environmental degradation. The development of intensive agriculture has led to extensive deforestation, affected soil and water quality, and loss of biodiversity in some areas. In the twentieth century, residential, agricultural, and industrial discharges polluted rivers in our Te Atiawa rohe. Te Atiawa continues to assert that this degradation has also affected the mauri of our Te Atiawa rohe.

Despite the challenge of historical central, regional and local government actions, Te Atiawa have proved resilient. Te Atiawa's population is large and growing, and we continue to take up opportunities in education, employment, housing and health. Today, we express our vision for the future in terms of moving from raupatu to redress to restoration.

We can now forge forward on our journey to preserve our cultural identity, uphold our Te Atiawa world view and begin to create a prosperous future for our people.

⁵Te Atiawa Deed of Settlement (2014)
<https://www.govt.nz/Treaty-settlement-documents/te-atiawa-taranaki/>

2.1 TE ROHE O TE ATIWA - TE ATIWA AREA OF INTEREST

For the purposes of *Tai Whenua*, *Tai Tangata*, *Tai Ao*, the rohe of Te Atiawa extends from Te Rau o Te Huia along the coast to the Herekawe Stream, inland to Tahuna-a-Tūtawa, east to Whakangerengere, northeast to Taramoukou, north back to Te Rau o te Huia and offshore out to 200 nautical miles (see Map 1.1). Te Atiawa has occupied this rohe for well over a millennium.⁶

This area of interest encompasses the Coastal Marine Area, part of Taranaki Maunga and overlaps with rohe of five whanaunga iwi including Ngāti Mutunga (north-east), Ngāti Maru (east), Ngāti Ruanui (south), Ngāruahine (south) and Taranaki (west).



Map 1.1 Te Atiawa Iwi Rohe

⁶Te Atiawa Deed of Settlement (2014)
<https://www.govt.nz/Treaty-settlement-documents/te-atiawa-taranaki/>

2.2 NGĀ HAPŪ O TE ATIWA - SUBGROUPS OF TE ATIWA

Today our Te Atiawa hapū from north to south are:

1. **NGĀTI RAHIRI HAPŪ**
2. **OTARAU HAPŪ**
3. **MANUKORIHI HAPŪ**
4. **PUKERANGIORA HAPŪ**
5. **PUKETAPU HAPŪ**
6. **NGĀTI TAWHIRIKURA HAPŪ**
7. **NGĀTI TE WHITI HAPŪ**
8. **NGĀTI TUPARIKINO HAPŪ**

2.3 NGĀ MARAE O TE ATIWA - MARAE OF TE ATIWA



1. **KAIRAU MARAE**
2. **KATERE KI-TE-MOANA MARAE**
3. **MURU RAUPATU MARAE**
4. **OTARAU MARAE**
5. **OWAE WHAITARA MARAE**



2.4 TE KOTAHITANGA O TE ATIWA TRUST - IWI AUTHORITY OF TE ATIWA

TE KOTAHITANGA IS THE MANDATED VOICE AND REPRESENTATIVE ENTITY FOR THE COLLECTIVE INTERESTS OF TE ATIWA.

Te Kotahitanga was established on 31 March 2014 as the post-settlement governance entity by a Deed of Trust. Following this the Te Atiawa Deed of Settlement was signed on 9 August 2014 and the Te Atiawa Claims Settlement Act (2016) enacted on 5 December 2016.

The Te Atiawa Deed of Settlement includes:

- A Conservation Protocol with the Department of Conservation;
- A Fisheries Protocol with the Ministry for Primary Industries;
- A Taonga Tūturu Protocol with the Ministry for Culture and Heritage;
- A Relationship Agreement with the Ministry of Business, Innovation and Employment in relation to Petroleum and Minerals; and
- A Relationship Agreement with the Ministry for the Environment.



As a partner to Te Tiriti o Waitangi (Te Tiriti) we require that a Tiriti relationship exists with central government agencies, regional and district councils and any other consenting authority including: Taranaki Regional Council; New Plymouth District Council; Stratford District Council; Department of Conservation; Ministry for the Environment; Environmental Protection Agency; Heritage New Zealand Pouhere Taonga and any other consenting authority.

Te Kotahitanga provides support to Te Atiawa on political, social, cultural, economic and environmental matters. With respect to environmental matters, Te Kotahitanga is developing Te Atiawa's capability to exercise rangatiratanga and kaitiakitanga over our environmental and cultural resources. The contact details for Te Kotahitanga are provided in Appendix 1.



3. NGĀ WHANONGA ME NGĀ MĀTĀPONO - TE ATIWA GUIDING PRINCIPLES

THE FOLLOWING PRINCIPLES PROVIDE THE FOUNDATION FOR, AND UNDERPIN TE ATIWA'S REQUIREMENTS FOR ENVIRONMENTAL MANAGEMENT WITHIN OUR TE ATIWA ROHE AND THE APPLICATION OF TAI WHENUA, TAI TANGATA, TAI AO.

Whakapapa is a genealogical sequence which places humans in an environmental context with all other flora and fauna and natural resources as part of a hierarchical genetic assemblage. Whakapapa follows a sequence beginning with the void, Ngā Tai o Te Kore, Ngā Tai o te Pō, then emerging light, Ngā Tai o te Ao Mārama through to the creation of the tangible world (Kei te whakarurutu ngā tai o Pupuke), the union of two primeval parents Ranginui (sky father) and Papatūānuku (earth mother) who were separated by Tānetokorangi and Tangaroa. This saw each of their offspring becoming deities (atua) and personified as kaitiaki of respective environmental domains. Humankind also evolved from them. The main atua include Tangaroa (marine and sealife), Tāne (in his many forms) (Trees, plants, bush and forrest) and all living things within them, Tāwhiri-mātea (meteorological and atmospheric elements), Rongo (agricultural and horticultural elements), Rūaumoko (geology and volcanology), Tū-te-nganahau (god of man and war). Our entire environment and its connections through whakapapa are preserved through these systems. Whakapapa is central to Te Atiawa's framework for managing important environmental and cultural resources, our perspective is holistic and integrated.

Rangatiratanga is the right of Te Atiawa to exercise authority and self-determination within our Te Atiawa rohe.

Kaitiakitanga is an inherent intergenerational responsibility and right of those who are tangata whenua to ensure the mauri of environmental and cultural resources within their rohe is healthy and strong, and the life-supporting capacity of these ecosystems is preserved. For Te Atiawa, kaitiakitanga entails an active responsibility to preserve and protect the whenua, waters, taonga species, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe, today and for generations to come.

Mauri is the active life-giving principle or physical life-principle. It is an intangible and intrinsic value. Mauri was created through the union of Ranginui and Papatūānuku and became ora (living) when they separated.

Mauri radiates outwards from the environments to the species for which it was intended. Mauri is unable to protect itself against unnatural changes to the environment, though it does have the ability to mend and heal, given appropriate time and conditions. Mauri can be used as a measure of understanding the health and wellness of that place or being. Mauri is therefore central to Te Atiawa's role as kaitiaki and we seek to ensure the mauri of the ecosystem and environment is protected and enhanced.

Wairuatanga is an understanding that the spiritual and physical worlds are inherently intertwined. All places and beings have their own wairua. Like mauri, wairua is an intangible and intrinsic value that is also used as a measure of understanding the health and wellness of a place or being. Wairuatanga is therefore central to Te Atiawa's role as kaitiaki and we seek to nourish and nurture the wairua of the environment and our people.

Wāhi tapu/wāhi taonga, urupā and sites of significance to Māori are places and things that are sacred or treasured and valued.

Mahinga kai is food and other resources and the location they are sourced from. The protection and enhancement of biodiversity and mahinga kai, and our ability to continue practices in accordance with tikanga underpin the issues and objectives of *Tai Whenua, Tai Tangata, Tai Ao*.

Mai te Taranaki Maunga ki uta ki tai Tangaroa extends from the awa of Taranaki Maunga to the moana. Managing environmental and cultural resources in a holistic manner, recognising they are interconnected.

Manaakitanga the act of giving and caring for others, and reciprocity of kindness, respect and humanity.

Kotahitanga unity, cohesion and collaboration to meet the common goal of sustainable resource management.

Te Atiawatanga working together to create a sense of belonging and strengthen Te Atiawa's identity.

Mahi tahi collaborating with collective responsibility, accountability and commitment to support and care for each other throughout all endeavours.

These guiding principles apply to all environmental and cultural resources within our Te Atiawa rohe and should be taken into account when we engage with the environment, or we engage with others agencies working with the environment.





4. HE ANGA PĀRONGO – TE ATIWA FRAMEWORK FOR ENGAGEMENT

THIS SECTION OUTLINES HOW TE KOTAHITANGA AND NGĀ HAPŪ O TE ATIWA SEEK TO BE INVOLVED IN CENTRAL GOVERNMENT, AND REGIONAL AND DISTRICT COUNCIL PROCESSES AND HOW WE EXPECT TO BE ENGAGED BY THESE ENTITIES.

4.1 TE ATIWA PARTICIPATION

Te Kotahitanga and Ngā Hapū o Te Atiawa seek engagement on almost all aspects of central government and regional and district council resource management functions due to Te Atiawa's deep spiritual, cultural and historical relationship with the environment within our Te Atiawa rohe.

4.2 STATUTORY ACKNOWLEDGEMENTS

Te Kotahitanga require that central government agencies, regional and district councils and any other consenting authority adhere to their statutory obligations. Statutory Acknowledgements form part of the Te Atiawa Deed of Settlement. They are given effect through statements of association which outline the cultural, spiritual, historical and traditional importance of these areas to Te Atiawa. Statutory Acknowledgements act as tools to acknowledge tangata whenua in specific areas of importance and allow a mechanism to improve Te Atiawa's participation in RMA processes.

Regional and district councils are required to undertake a notification assessment for resource consent applications. Te Kotahitanga and Ngā Hapū o Te Atiawa should be identified as affected parties under Section 95E of the RMA for proposed activities on or adjacent to, or that may affect, areas that are subject to Statutory Acknowledgement made in accordance with the RMA. Te Atiawa Statutory Acknowledgements are listed in Schedule 11 of the RMA and included in *Tai Whenua*, *Tai Tangata*, *Tai Ao* as Schedule 1. However, this should not limit regional and district councils in their notification process and we require regional and district councils to notify both Te Kotahitanga and the relevant hapū of Te Atiawa. Section 4.3 below sets out the dual notification process for Te Atiawa.

Statutory Acknowledgements and the statements of association should also be recorded in planning documents and we require agencies to include these on planning maps. Te Atiawa requires that regional and district councils planning maps are supplemented with information on the purpose of and obligations arising from the Statutory Acknowledgements.

We require that regional and district councils adhere to the process set out by the Ministry for the Environment on limited notification in relation to Statutory Acknowledgements. We consider this process to be best practice. For reference, this is provided at Appendix 2.

4.3 DUAL NOTIFICATION PROCESS AND ENGAGEMENT

Our process of notification with central government agencies, regional and district councils and any other consenting authority requires that dual notification with both Te Kotahitanga and the relevant hapū of Te Atiawa is undertaken.

The contact details for Ngā Hapū o Te Atiawa can be accessed by making contact with Te Kotahitanga or online at www.teatiawa.iwi.nz.

To determine the appropriate hapū for engagement contact Te Kotahitanga.

Whilst *Tai Whenua*, *Tai Tangata*, *Tai Ao* is a statement of values and policy it does not replace kanohi ki te kanohi dialogue between applicants and Te Atiawa for resource management matters.







5. TE ATIWA ME TE TAI AO - TE ATIWA AND RESOURCE MANAGEMENT

5.1 KO NGĀ TURE MŌ TE TAI AO - STATUTORY FRAMEWORK

There are a number of primary and secondary statutes that establish the planning framework for Te Atiawa to participate in the management of natural, physical and historic resources, including the recognition of Iwi Management Plans. We will uphold the rights and interests of Te Atiawa. As a Treaty partner we require engagement on any amendment or review of any of the statutes listed below that affect our Te Atiawa rohe.

The primary statutes (at the time Tai Whenua, Tai Tangata, Tai Ao became operative) are as follows:

- Conservation Act 1987;
- Environmental Protection Authority Act 2011;
- Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 and regulations;
- Historic Places Act 1993;
- Marine and Coastal Areas (Takutai Moana) Act 2011;
- Resource Management Act 1991;
- Sugar Loaf Islands (Ngā Motu) Marine Protected Area Conservation Management Plan 1997;
- Te Tiriti o Waitangi – Treaty of Waitangi Act 1975;
- Te Atiawa Claims Settlement Act 2016; and
- Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.

The secondary Legislation (at the time Tai Whenua, Tai Tangata, Tai Ao became operative) are as follows:

- Biosecurity Act 1993;
- Crown Minerals Act 1991;
- Environment Act 1986;
- Fire and Emergency New Zealand Act 2017;
- Fisheries Act 1996;
- Forests Act 1949;
- Hazardous Substances and New Organisms Act 1996;
- Marine Mammal Protection Act 1978;
- Public Works Act 1981;
- Reserves Act 1977;
- State Owned Enterprises Act 1986;
- Māori Fisheries Act 2004;
- Te Ture Whenua Act 1993; and
- Wildlife Act 1953.

5.1.1 LOCAL AUTHORITIES

The following regional and district councils are located, either wholly or in part, within our Te Atiawa rohe:

- Taranaki Regional Council;
- New Plymouth District Council;
- Stratford District Council; and
- Waikato Regional Council (in relation to the headwaters of the Waitara River catchment).
- Waitomo District Council

Te Atiawa will be engaged in all preparation, implementation and review of the local authorities' policy and planning instruments, along with any new documents prepared, including but are not limited to:

- Regional Policy Statements,
- District Plans,
- plans,
- strategies,
- standards,
- management plans,
- accords,
- reports and
- bylaws

5.1.2 DEPARTMENT OF CONSERVATION

The Department of Conservation Hauraki-Waikato-Taranaki Operations Region incorporates the Te Atiawa rohe. At a Department of Conservation level, the Te Atiawa rohe sits within the Taranaki Area Department of Conservation Office. The key Department of Conservation policy and management instruments which relate to this Plan, and which Te Atiawa will be engaged in all preparation, implementation and review of these instruments along with any new planning documents prepared include but are not limited to:

- Management Plans and Strategies
- Protocols
- Statements of General Policy

5.2 HE KETE PARAHA MŌ TE TAI AO - TE ATIWA PLANNING AND MONITORING TOOLS

Te Atiawa use a number of tools to assist with the exercise of kaitiakitanga, specifically with regard to implementing cultural values and objectives into Resource Management Act 1991 processes. These include but are not limited to the tools set out below.

CULTURAL VALUES STATEMENT

A Cultural Values Statement identifies and explains the cultural values associated with a specific area or resource. While a Cultural Values Statement may include high level information on issues or outcomes associated with an area, resource or proposed activity. Generally these reports differ from a Cultural Impact Assessment, in that they do not include a detailed assessment of effects of an activity, or recommendations to avoid, remedy or mitigate effects. The preparation of a Cultural Values Statement may be required by Te Atiawa or requested by central government agencies, regional and district councils and applicants at their expense.

CULTURAL IMPACT ASSESSMENT

A Cultural Impact Assessment is a professionally prepared assessment of the impacts of a given activity on tangata whenua values and interests. These assessments identify Te Atiawa's values associated with a particular site or area and the actual or potential effects of a proposed activity on these, and provide recommendations for measures to avoid, remedy or mitigate adverse effects. A Cultural Impact Assessment may be required by Te Atiawa or requested by central government agencies, regional and district councils and applicants at their expense.

CULTURAL AND ENVIRONMENTAL MONITORING

Cultural and environmental monitoring is undertaken by Ngā Hapū o Te Atiawa kaitiaki to protect and manage the integrity of environmental and cultural resources of importance to Te Atiawa within our rohe.

Designated Ngā Hapū o Te Atiawa cultural monitors are trained to oversee land disturbance activities in areas identified as having a high or moderate likelihood of accidental discoveries of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. Cultural monitors are on-site to record information pertaining to sites that may be discovered and direct methods for handling cultural material.

Designated Ngā Hapū o Te Atiawa environmental monitors are trained in designing, planning and implementing baseline assessments which involve sampling and testing of water, soil and matter at accredited laboratories before and after activities to understand baseline environmental conditions and determine the impact of such activities.

The use of cultural and environmental monitors enables Ngā Hapū o Te Atiawa kaitiaki to be proactive in ensuring that all precautions are taken to protect these resources. Cultural and environmental monitoring is required by Ngā Hapū o Te Atiawa, and may be requested by central government agencies, regional and district councils and applicants at their expense.

CULTURAL HEALTH INDICATORS

Te Atiawa are developing a set of Cultural Health Indicators to monitor the health of our waterways and mahinga kai within our Te Atiawa rohe. These Cultural Health Indicators stem from research conducted by Gail Tipa and Laurel Teirney (2003, 2006) and are modified to reflect Te Atiawa Matāuranga Māori (traditional knowledge) and cultural values. These Cultural Health Indicators are currently being used by Te Atiawa kaitiaki to build up a repository of data to understand the current state of our waterways. Te Atiawa kaitiaki may be requested by central government agencies, regional and district councils and applicants to undertake Cultural Health Indicator monitoring at their expense.

STREAM HEALTH MONITORING AND ASSESSMENT KIT

Te Atiawa kaitiaki are trained in the use of Stream Health Monitoring Assessment Kit. Stream Health Monitoring and Assessment Kits were developed for use in New Zealand by the National Institute of Water and Atmospheric Research (NIWA) and was designed as a tool for kaitiaki. The kit collects scientifically robust data, biological data on macroinvertebrate species diversity and abundance, stream habitat observations and land-use and management data, which is then extrapolated into a score to determine the condition of the waterway. Stream Health Monitoring and Assessment Kits are being used by Te Atiawa kaitiaki to build up a repository of data to understand the current state of our waterways. Te Atiawa kaitiaki may be requested by central government agencies, regional and district councils and applicants to undertake Stream Health Monitoring and Assessment Kit monitoring at their expense.

INTEGRATED CATCHMENT MANAGEMENT PLAN

Te Atiawa will develop and use an Integrated Catchment Management Plan or multiple plans as tools to manage the effects of land use change and development on the environment and the values of Te Atiawa. These Integrated Catchment Management Plans will present the data captured with Cultural Health Indicators and Stream Health Monitoring and Assessment Kit monitoring. Integrated Catchment Management Plans may be requested by central government agencies, regional and district councils and applicants at their expense.

RĀHUI

Te Atiawa have used rāhui as a management tool for generations. Rāhui involves the prohibition of an affected area of land, sea and air. A rāhui may be put in place by Te Atiawa to maintain and enhance the productiveness and health of an area and the people. If an area is rendered tapu, a complete prohibition or rāhui will be set in place for a period of time, or is subject to observations by Te Atiawa until the status of the resource recovers. When this assessment is made by Te Atiawa, the rāhui will be lifted. Rāhui will be used by Te Atiawa to maintain and enhance affected areas.

MARINE MAMMAL OBSERVERS (MMOS) AND PASSIVE ACOUSTIC MONITORS (PAMS)

Some Te Atiawa kaitiaki are qualified Marine Mammal Observers (MMOs) and Passive Acoustic Monitors (PAMs). The primary function of Te Atiawa MMOs and PAMs is to monitor for marine mammals and ensure that works resulting in underwater noise and vibration such as seismic surveys is conducted in compliance with national guidelines. Qualified Te Atiawa MMOs and PAMs may be requested to undertake monitoring by central government agencies and applicants at their expense.

ON-CALL PROCEDURE

Ngā Hapū o Te Atiawa have developed an On-Call Procedure in accordance with tikanga for the discovery of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. Applicants must adhere to On-Call Procedure when undertaking land disturbance activities in areas identified as having any likelihood of accidental discoveries of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. For areas of high or moderate likelihood of discoveries cultural monitors must also be on-site. Central government agencies, regional and district councils and applicants may request to use On-Call Procedure from the relevant Te Atiawa hapū.





6. NGĀ TAKE, NGĀ PAETAE ME NGĀ KAUPAPA – ISSUES, OBJECTIVES AND POLICIES

This section of *Tai Whenua, Tai Tangata, Tai Ao* identifies the issues, objectives, policies and methods for addressing environmental and cultural resources of importance to Te Atiawa. The purpose of this section is not to give a comprehensive response to all environmental matters but rather, to focus on those key matters that are important to Te Atiawa and how associated issues may be addressed.

This section focuses on eight domains. They are:

- Te Tai Hauora - Guardianship
- Te Tai Awhi-Nuku - Inland and Coastal Whenua
- Te Tai o Maru - Freshwater
- Te Tai o Tangaroa - Coastal and Marine Environment
- Te Tai Awhi-Rangi - Air and Atmosphere
- Te Tai o Tānetokorangi - Flora and Fauna
- Te Tai Hekenui - Heritage
- Te Tai o Rua Taranaki - Taranaki Maunga

6.1 TE TAI HAUORA - GUARDIANSHIP

Te Tai Hauora invokes the act of replenishing, fostering and maintaining life. It is central to the relationship that Te Atiawa have with the environment. Te Atiawa, as kaitiaki of our ancestral lands, waters, taonga species, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori, are responsible for preserving and protecting the mauri of these resources today and for generations to come.

This section provides an overarching policy statement on Te Tai Hauora within our Te Atiawa rohe. It sets the foundation for all other policy statements within *Tai Whenua*, *Tai Tangata*, *Tai Ao* and therefore requires consideration when reading each of the subsequent sections.

The Te Tai Hauora issues within our Te Atiawa rohe are summarised below:

TE TAI HAUORA	
Ngā Take - Issues	
Issue Te Tai Hauora (TTHA)1: Acknowledgement of Te Tiriti o Waitangi	The lack of acknowledgment of Te Tiriti o Waitangi as the foundation for an effective equal partnership between Te Atiawa and central government agencies, regional and district councils and any other consenting
Issue TTHA2: Acknowledgement of Te Ture Whenua Act	The lack of acknowledgement of Te Ture Whenua Māori Act (1993) and providing for the relationship that Māori have with land and assisting Māori landowners to promote the use, development and control of Māori land.
Issue TTHA3: Acknowledgement of Tangata	The lack of acknowledgment and appropriate engagement with tangata whenua.
Issue TTHA4: Acknowledgement of Kaitiakitanga	The lack of acknowledgment of kaitiakitanga as part of resource management policy and planning, and decision making processes.
Issue TTHA5: Participation in Decision-making Processes	The lack of active involvement in decision-making processes around the development and use of natural and physical resources.
Issue TTHA6: Resourcing and Capacity	The lack of resource and capacity within Te Atiawa to enable effective participation in natural resource management policy and planning, and decision-making processes.

ACKNOWLEDGEMENT OF TE TIRITI O WAITANGI

Issue TTHA1: The lack of acknowledgment of Te Tiriti o Waitangi as the foundation for an effective equal partnership between Te Atiawa and central government agencies, regional and district councils and any other consenting authority.

The objectives, policies and methods to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Objective (Ob) Te Tai Hauora (TTHA)1.1

Te Tiriti o Waitangi is acknowledged as the foundation of the effective equal partnership between Te Atiawa and central government agencies, regional and district councils and any other consenting authority.

Ngā Kaupapa – Policies

Policy (Pol) Te Tai Hauora (TTHA)1.

Require central government agencies, regional and district councils and any other consenting authority recognise Te Tiriti o Waitangi as the foundation for an effective equal partnership between Te Atiawa and central government agencies, regional and district councils and any other consenting authority.

Pol. TTHA 1.2

Require central government agencies, regional and district councils and any other consenting authority to give effect to the articles and principles of Te Tiriti o Waitangi.

Pol. TTHA 1.3

Require central government agencies, regional and district councils and any other consenting authority, in giving effect to the principles of Te Tiriti o Waitangi, to recognise and provide for kaitiakitanga and rangatiratanga.

Pol. TTHA 1.4

Recognise that the interests of Te Atiawa, as tangata whenua, extend beyond that of stakeholder or community interests.

Ngā Tikanga – Methods

Method (Meth) Te Tai Hauora (TTHA)1.1

Institute or amend statutory planning documents to take into account *Tai Whenua*, *Tai Tangata*, *Tai Ao*.

Meth. TTHA1.2

Establish robust processes to ensure Te Atiawa participation in all resource management.

Meth. TTHA1.3

Ensure hearing commissioners/decision makers are equipped with the skills and knowledge to give effect to the principles of Te Tiriti o Waitangi in resource management processes.

Meth. TTHA1.4

Te Atiawa communicate interests to central government agencies, regional and district councils and any other consenting authority.

Meth. TTHA1.5

Ngā Hapū o Te Atiawa have the ability to exercise discretion over information pertaining to wāhi tapu/ wāhi taonga, urupā and sites of significance to Māori.

TE TURE WHENUA MĀORI ACT 1993

Issue TTHA 2: The lack of acknowledgement of Te Ture Whenua Māori Act and providing for the relationship that Māori have with land and assisting Māori landowners to promote the use, development and control of Māori land.

The objectives, policies and methods to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTHA2.1

Te Ture Whenua Māori Act is acknowledged and provides for the relationship that Māori have with land and assists Māori landowners to promote the use, development and control of their land.

Ngā Kaupapa – Policies

Pol. TTHA2.1

Require central government agencies, regional and district councils and any other consenting authority recognise that land is a taonga tuku iho of special significance to Māori and to promote the retention of that land in the hands of its owners, their whānau, and their hapū.

Pol. TTHA2.2

Require support to facilitate the occupation, development of that land for the benefit of its owners, their whānau, and their hapū.

Ngā Tikanga – Methods

Meth. TTHA2.1

Te Atiawa communicate Māori land interests to central government agencies, regional and district councils and any other consenting authority.

Meth. TTHA2.2

Te Atiawa will make submissions on all planning documents that may affect our environmental and cultural resources.

ACKNOWLEDGMENT OF TANGATA WHENUA

Issue TTHA3: The lack of acknowledgment and appropriate engagement with tangata whenua.

The objectives, policies and methods to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTHA3.1

Te Atiawa members who hold mātauranga or knowledge that has been passed down through generations are recognised as experts on resource management issues in our rohe.

Ob. TTHA3.2

Engagement with Te Atiawa, as tangata whenua, on resource management issues meets our expectations.

Ngā Kaupapa - Policies

Pol. TTHA3.1

Te Atiawa are tangata whenua of the rohe which extends from Te Rau o Te Huia along the coast to the Herekawe Stream, inland to Maunga Taranaki and offshore.

Practise note: for the avoidance of doubt the extent of our rohe is outlined in Section 2.1.

Pol. TTHA3.2

Tai Whenua, Tai Tangata, Tai Ao does not replace the need to engage kanohi ki te kanohi with Te Atiawa.

Practise note: the dual notification process and requirement for kanohi ki te kanohi engagement is set out in Section 4.3.

Pol. TTHA3.3

Central government agencies, regional and district councils and any other consenting authority support Te Atiawa to achieve our environmental aspirations.

Pol. TTHA3.4

The areas of shared interest between Te Atiawa and our whanaunga iwi including Taranaki, Ngā Ruahine, Ngāti Ruanui, Ngāti Maru and Ngāti Mutunga shall be managed appropriately to ensure each others cultural values are recognised and protected.

Pol. TTHA3.5

Ngā Hapū o Te Atiawa will be informed on all issues affecting natural, physical and heritage resources within our rohe.

Ngā Tikanga - Methods

Meth. TTHA3.1

Te Kotahitanga and Ngā Hapū o Te Atiawa are listed on central government agencies, regional and district councils and any other consenting authority's contact lists.

Meth. TTHA3.2

Relationship agreements such as memorandums of understanding and protocols with central government agencies, regional and district councils and any other consenting authority are entered into.

Meth. TTHA3.3

Te Kotahitanga will implement systems that seek to ensure Ngā Hapū o Te Atiawa are informed on all issues affecting natural, physical and heritage resources within our rohe.

Meth. TTHA3.4

Where appropriate, Te Kotahitanga and Ngā Hapū o Te Atiawa will work together to address resource management matters of shared importance.

ACKNOWLEDGMENT OF KAITIAKITANGA

Issue TTHA4: The lack of acknowledgment of kaitiakitanga as part of resource management policy and planning, and decision making processes.

The objectives, policies and methods to address this issue within the Te Atiawa rohe are:

Ngā Paetae - Objectives

Ob. TTHA4.1

Te Atiawa are recognised as kaitiaki over natural and physical and cultural resources within our respective rohe boundaries.

Ob. TTHA4.2

Te Atiawa exercise our duties as kaitiaki within our respective rohe boundaries.

Ob. TTHA4.3

Protect, maintain and enhance the mauri of natural resources which in turn sustains the social, economic, and cultural wellbeing of our people.

Ngā Kaupapa – Policies**Pol. TTHA4.1**

Require central government agencies, regional and district councils, any other consenting authority and users of *Tai Whenua*, *Tai Tangata*, *Tai Ao*, to have the capability to appropriately acknowledge and provide for kaitiakitanga and that this is supported by all Council officials including Councillors, commissioners, senior management and officers.

Practise note: this could include provision for cultural monitoring, maintenance opportunities, community environmental restoration projects, education initiatives.

Pol. TTHA4.2

Require central government agencies, regional and district councils and any other consenting authority to identify Te Atiawa Statutory Acknowledgement waterways for recognition in schedules within any Regional Policy Statement, regional plans, district plans and in mapping web portals.

Pol. TTHA4.3

Require central government agencies, regional and district councils and any other consenting authority to resource and support the development and use of cultural and environmental monitoring tools to assess the health of our environmental and cultural resources.

Pol. TTHA4.4

Require central government agencies, regional and district councils and any other consenting authority to work towards joint management or transfer of control and duties of resources within our rohe to Te Atiawa.

Practise note: for the avoidance of doubt refer to Section 5.2 for Te Atiawa Planning and Monitoring Tools.

Pol. TTHA4.5

Require central government agencies, regional and district councils and any other consenting authority to promote leadership in protecting Te Atiawa's relationship with natural, physical and cultural resources of importance within our rohe.

Pol. TTHA4.6

Require central government agencies, regional and district councils and any other consenting authority to support Te Atiawa as we invoke customary rituals, ceremonies and activities such as rāhui in accordance with tikanga.

Ngā Tikanga – Methods**Meth. TTHA4.1**

Develop a protocol with central government agencies, regional and district councils and any other consenting authority around the management of Te Atiawa Statutory Acknowledgements.

Meth. TTHA4.2

Where appropriate, identify wāhi tapu/wāhi taonga, urupā and sites of significance to Māori for recognition in schedules of regional and district plans.

Meth. TTHA4.3

Ngā Hapū o Te Atiawa have the ability to exercise discretion over information pertaining to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

Meth. TTHA4.4

Te Atiawa to develop a suite of traditional monitoring tools to assess and monitor all environmental and cultural resources.

Meth. TTHA4.5

Investigate opportunities for joint management or transfer of control and duties from central government agencies, regional and district councils and any other consenting authority to Te Atiawa.

Meth. TTHA4.6

Develop a Te Atiawa rāhui protocol.

PARTICIPATION IN DECISION-MAKING PROCESSES

Issue TTHA5: The lack of active involvement in decision-making processes around the development and use of natural and physical resources.

The objectives, policies and methods to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTHA5.1

Te Atiawa are active participants in all resource management decision-making processes of central government agencies, regional and district councils and any other consenting authority.

Ob. TTHA5.2

The tikanga, values and principles of Te Atiawa are considered and appropriate weight is given to these values during the decision-making process.

Ob. TTHA5.3

The principle of ‘policy by design’ is adopted to make the policy process more accessible to Te Atiawa, to develop policy that is more responsive to our needs and experiences, and to create a stronger feedback loop between research, policy, implementation and their impacts on the ground.

Ngā Kaupapa – Policies

Pol. TTHA5.1

Require central government agencies, regional and district councils and any other consenting authority to engage with Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any application made under the Resource Management Act 1991 which may affect the interests of Te Atiawa.

Pol. TTHA5.2

Require central government agencies, regional and district councils and any other consenting authority to establish and resource engagement processes for Te Atiawa to actively and effectively participate in:

- a) co-design of policy and plan development and reviews;
- b) resource consent processes including the co-design of solutions (e.g stormwater and wastewater designs) and consent conditions;
- c) monitoring of consents;
- d) provision of cultural and environmental

monitoring which includes Cultural Health Indicator monitoring;

- e) preparation of Cultural Values Statements and Cultural Impact Assessments for plan changes, significant activities, resource consent applications and development; and
- f) participating in decision making processes.

Pol. TTHA5.3

Require plan users to consult kanohi ki te kanohi with Te Atiawa on their proposals at an early stage.

Pol. TTHA5.4

Require central government agencies, regional and district councils and any other consenting authority to take into account any planning document recognised by an Iwi Authority affected by a resource consent; and take into account the effects on Te Atiawa Statutory Acknowledgements and/or customary rights and interests of Te Atiawa.

Pol. TTHA5.5

Require central government agencies, regional and district councils and any other consenting authority to, in consultation with Te Atiawa, maintain a list of Hearing Commissioners with recognised expertise in tikanga Māori and resource management and/or relevant technical matters.

Pol. TTHA5.6

Require a Hearing Commissioner from the list specified in policy TTHA5.5 be appointed for hearings under the Resource Management Act 1991 where ancestral taonga or tikanga Māori is identified as an issue by Te Atiawa in the proposal being heard.

Ngā Tikanga – Methods

Meth. TTHA5.1

Te Atiawa will be engaged to inform the decision-making processes of the Local Government Act 2002 (Long Term Annual Plan), Resource Management Act 1991 (regional plans, district plans and resource consents), Historic Places Act 1993 (archaeological authorities and site registrations) and all other legislation and planning documents.

Meth. TTHA5.2

Ensure that all resource consent applications take into account Te Atiawa cultural values and the effect of the proposed activity on these values as assessed by Te Atiawa.

Meth. TTHA5.3

Develop an engagement protocol with central government agencies, regional and district councils and any other consenting authority which sets out the process of engagement (as outlined in Section 4.3).

Meth. TTHA5.4

Negotiate relationship agreements such as memorandums of understandings, Service Level Agreements and protocols with central government agencies, regional and district councils and any other consenting authority around Te Atiawa participation.

RESOURCING AND CAPACITY BUILDING

Issue TTHA6: The lack of resource and capacity within Te Atiawa to enable effective participation in resource management policy and planning, and decision-making processes.

The objectives, policies and methods to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives**Ob. TTHA6.1**

The resource and capacity of Te Atiawa to participate in resource management policy and planning processes is increased.

Ngā Kaupapa - Policies**Pol. TTHA6.1**

Require that central government agencies, regional and district councils and any other consenting authority implement appropriate methods and processes to resource and build capacity within Te Atiawa to contribute to decision making as per the Local Government Act 2002 (LGA). This includes but is not limited to:

- a) the provision of meaningful opportunities to contribute to decision making processes;
- b) the provision of training opportunities on resource management issues;
- c) the provision of employment opportunities; and
- d) ensuring that Te Atiawa's contributions to resource management processes are appropriately resourced.

Pol. TTHA6.2

Support Te Atiawa in addressing resourcing and capacity issues.

Ngā Tikanga - Methods**Meth. TTHA6.1**

Investigate, identify and provide opportunities for practical exercise of kaitiakitanga by Te Atiawa.

Meth. TTHA6.2

Investigate, identify and provide opportunities for experience and upskilling of Te Atiawa in Resource Management Act 1991 matters and of central government agencies, regional and district councils and any other consenting authority in understanding cultural values.

Meth. TTHA6.3

Implement appropriately resourced relationship agreements such as memorandums of understandings and protocols with central government agencies, regional and district councils and any other consenting authority for Te Atiawa's participation.

6.2 TE TAI AWHI-NUKU - INLAND AND COASTAL WHENUA

Awhi-Nuku is another name for Papatūānuku or earth mother. Her union and separation with Ranginui (sky father) gave rise to many children each becoming ātua of respective domains of the environment through to the creation of mankind. She is the birthplace of all things of the world, and the place to which they return. Awhi-Nuku provides for us and we depend on her health and resilience. As kaitiaki, Te Atiawa are responsible for protecting and maintaining the mauri of Awhi-Nuku, and enhancing the mauri where it has been degraded by inappropriate use and development from humans.

The whenua of Te Atiawa extends from Taranaki Maunga, over the ring plain to the coast and out to sea. It supports ngahere, farms, marae, townships and associated infrastructure, kāinga, pā, urupā, Tauranga waka, Tauranga ika, mauri kohatu and pūkawa for gathering kai.

This section addresses issues in our Te Atiawa rohe relating to Awhi-Nuku. It includes issues such as intensive farming, industrial activities, urban planning, subdivision and development, papakāinga, land disturbance, stormwater and waste management, discharge to land and contaminated land, and onshore petroleum and mineral exploration and extraction activities. This section should be read in conjunction with Section 6.1.

WHAKARĀPOTO NGĀ TAKE - SUMMARY OF ISSUES

The Te Tai Awhi-Nuku issues within our Te Atiawa rohe are summarised below:

TE TAI AWHI-NUKU	
Ngā Take - Issues	
Issue Te Tai Awhi-Nuku TTAN1: Intensive farming	Intensive farming is generating adverse effects on water quality and quantity, biodiversity and soil health.
Issue TTAN2: Industrial Activities	Industrial activities can generate adverse effects on water, air and atmosphere quality, biodeversity, soil health and adjacent land users.
Issue TTAN3: Urban and Township planning	The lack of participation in urban and township planning and development has resulted in adverse effects on Te Atiawa values.
Issue TTAN4: Subdivision and Development	Inapropriate subdivison and development can generate adverse effects on Te Atiawa values.
Issue TTAN5: Papakāinga	The right to reside on, use and develop ancestral land is inhibited by land zoning rules, housing density rules, provision of infrastructure and servicesm and multiple ownership.
Issue TTAN6: Land Disturbance	Land disturbance activities can damage and destroy sites of significance to Māori.
Issue TTAN7: Stormwater Management	The discharge of contaminated stormwater from activities within urban, rural, commercial and industrial environments can generate unacceptable effects on water quality, water quantity, and incremental and cumulative effects on the entire catchment.
Issue TTAN8: Waste Management	Disposal and management of waste can generate adverse effects on Te Atiawa values.
Issue TTAN9: Discharge to Land	Discharges to land can generate adverse effects and must be managed to avoid adverse effects on soil health and water quality.

Issue TTAN10: Contaminated Land	Inappropriate activities have resulted in land contamination.
Issue TTAN11: Onshore Petroleum Exploration and Extraction Activities	Onshore oil and gas exploration and mineral extraction can generate adverse effects on the landscape, environment and cultural values.

NGĀ PAETAĒ - GENERAL OBJECTIVES

General (Gen) Ob. TTAN1.1

Protect and enhance native vegetation, species and environments such as rivers, streams, tributaries and wetlands.

Gen. Ob. TTAN1.2

Protection of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori, from damage, modification, desecration, destruction and loss of access.

Gen. Ob. TTAN1.3

Protect the mauri of our ancestral lands and wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

NGĀ KAUPAPA - GENERAL POLICIES

General (Gen) Pol. TTAN1.1

Require that central government agencies, regional and district councils and any other consenting authority recognise and provide for the relationship of Te Atiawa with our ancestral lands, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori in land use planning and decision making

Gen. Pol. TTAN1.2

Require that central government agencies, regional and district councils and any other consenting authority recognise that only Te Atiawa can identify the impact of land use activities on the relationship with our ancestral lands, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe.

Gen. Pol. TTAN1.3

Require that central government agencies, regional and district councils and any other consenting authority engage with Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any consent application made under the Resource Management Act 1991 which may effect Te Atiawa's ancestral lands, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

Gen. Pol. TTAN1.4

Require land use activities to occur in a manner that is consistent with land capability, natural resource capacity, availability and limits, and the overall capacity of catchments.

Gen. Pol. TTAN1.5

Prohibit damage, modification, desecration, destruction to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori, and loss of access to these sites.

Gen. Pol. TTAN1.6

Ensure Te Atiawa cultural monitoring techniques, based on mātauranga Māori, are required for all land disturbance activities.

Practise note: for the avoidance of doubt refer to Section 5.2 for Te Atiawa Planning and Monitoring Tools.

INTENSIVE FARMING

Te Take - Issue

Issue TTAN1: Intensive farming is generating adverse effects on water quality and quantity, biodiversity and soil health.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTAN1.1

The discontinuation of inappropriate farming practices that result in any adverse effects on the quality and quantity of water and the quality of soil.

Ngā Kaupapa - Policies

Pol. TTAN1.1

Avoid any point source discharges from farming activities to water.

Pol. TTAN1.2

Require appropriate treatment of existing and new discharges from farming activities that may enter waterbodies.

Pol. TTAN1.3

Require metering of permitted and consented water takes.

Pol. TTAN1.4

Avoid culverting of Te Atiawa Statutory Acknowledgement waterways.

Pol. TTAN1.5

Support sustainable pest control methods to remove all invasive pest species and plants from the whenua.

Pol. TTAN1.6

Require practices that avoid contaminating soil with chemicals, including measures to reduce the use of fertiliser.

Pol. TTAN1.7

Support soil health monitoring within our Te Atiawa rohe and require regional council monitoring reports to be provided to Te Atiawa.

Pol. TTAN1.8

Require fencing and planting of riparian margins and wetlands with site-specific native plants to protect from stock and reduce sediment and other contaminants entering waterbodies.

Pol. TTAN1.9

Avoid planting of exotic species such as willow in riparian areas.

Pol. TTAN1.10

Require the retirement of steep hillsides and replanting them in area specific native vegetation.

Practise note: guidance on replanting indigenous vegetation which has been lost throughout Taranaki has been developed by Wild for Taranaki <https://www.trc.govt.nz/environment/land-and-farming/biodiversity-in-taranaki/wild-for-taranaki/restoration-planting-guides/>

INDUSTRIAL ACTIVITIES

Te Take - Issue

Issue TTAN2: Industrial activities can generate adverse effects on water, air and atmosphere quality, biodiversity, soil health and adjacent land users.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTAN2.1

Restore, protect and enhance catchments which are directly or indirectly impacted by industrial activities within our Te Atiawa rohe including and not limited to Waitara, Waiongana, Mangaoraka, Waitaha, Waihowaka, Mangati, Mangaone, Herekawe and Waiwhakaiho and their tributaries.

Ngā Kaupapa - Policies

Pol. TTAN2.1

Avoid adverse effects on waterbodies, and natural and cultural areas of significance resulting from industrial wastes, materials and products.

Pol. TTAN2.2

Include the provision for conditions of consent requiring:

- a) on-site disposal of storm water to achieve stormwater neutrality;

- b) site design/layout to maintain and enhance the natural and cultural landscape and include riparian margin management; and
- c) best practice, or adaptive management approaches.

Pol. TTAN2.3

Avoid cross-boundary effects on natural and cultural areas of significance resulting from industrial developments. Include the provision for conditions of consent requiring appropriate setback distances from new industrial land uses and activities.

Pol. TTAN2.4

Require that regional and district councils include provisions that address the incremental and cumulative effects within catchments of industrial-related activities when developing planning documents, and assessing resource consents.

Pol. TTAN2.5

Support the development and use of Integrated Catchment Management Plans as a tool to managing industrial-related activities and the effects on Te Atiawa values, and to inform the development of planning documents and assessment of resource consents.

URBAN AND TOWNSHIP PLANNING AND DEVELOPMENT

Te Take - Issue

Issue TTAN3: The lack of participation in urban and township planning and development.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTAN3.1

Te Atiawa has a prominent and influential role in urban planning and development.

Ob. TTAN3.2

Acknowledge and provide for Te Atiawa values and the expressions of our narrative in the built form and landscaping or urban environments.

Ngā Kaupapa - Policies

Pol. TTAN3.1

Work with district councils to recognise and provide for Te Atiawa values in urban and township planning, including to:

- a) require the involvement of Te Atiawa in the development and implementation of urban and township development plans and strategies;
- b) promote Te Atiawa’s guiding principles and values to inform urban development and township planning within our Te Atiawa rohe including urban development capacity;

Practise note: for the avoidance of doubt refer to Section 3 for Te Atiawa Guiding Principles.

- c) require that Te Atiawa’s cultural landscapes are protected and enhanced, and articulated in the built design to connect and deepen our ‘sense of place’.

Pol. TTAN3.2

Require district councils to engage with Te Atiawa at Plan Change stage, where plan changes are required to enable subdivision, to identify potential effects on wāhi tapu/wāhi taonga, urupā and sites of significance to Māori and Te Atiawa cultural values.

Practise note: This could be achieved by supporting the preparation of a Cultural Values Statement and Cultural Impact Assessment. For the avoidance of doubt refer to Section 5.2 for Te Atiawa Planning and Monitoring Tools.

SUBDIVISION AND DEVELOPMENT

Te Take – Issue

Issue TTAN4: Inappropriate subdivision and development can generate effects on Te Atiawa values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN4.1

The interests, values and protection of whenua, water, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori are provided for in the process and design of subdivisions.

Ob. TTAN4.2

Acknowledge and provide for Te Atiawa values and the expressions of our narrative in the built form and landscaping.

Ob. TTAN4.3

Water, stormwater and waste water solutions are co-designed with Te Atiawa to ensure Te Atiawa values are protected and enhances at the time of subdivision.

Ob. TTAN4.4

Acknowledge and provide for Te Atiawa cultural landscapes in the built design to connect and deepen our 'sense of place'.

Ngā Kaupapa – Policies

Pol. TTAN4.1

Restrict development within 50 metres from the outer most extent of a wāhi tapu/wāhi taonga, urupā and site of significance.

Pol. TTAN4.2

Require regional and district councils to consider cumulative effects and future land uses when assessing applications to subdivide land.

Pol. TTAN4.3

Require applicants, regional and district councils to engage kanohi ki te kanohi with Te Atiawa in the early stages of developing subdivision proposals to ensure that:

- a) resource consent applications assess actual and potential effects on Te Atiawa values and associations;
- b) ensuring that effects on Te Atiawa values are avoided in the first instance, and then remedied or mitigated using culturally appropriate methods;
- c) Te Atiawa values and cultural landscapes are reflected in the subdivision design to connect and deepen our 'sense of place'; and
- d) protect, maintain and enhance the environment and amenity values of the subdivision in accordance with Te Atiawa values.

Pol. TTAN4.4

Require applicants, regional and district councils to prepare subdivision applications that are comprehensive so all aspects of the activity can be evaluated upfront and thus avoid issues being missed. This information must include but is not limited to the following:

- a) plans showing the location of building platforms;
- b) plans showing intended locations of infrastructure such as network utilities, sewer and water and stormwater solutions;
- c) plans showing roading networks; and
- d) the possible extent of land disturbance.

Pol. TTAN4.5

Require the use of the following methods to facilitate engagement with Te Atiawa where a subdivision, land use or development activity may have actual or potential adverse effects on cultural values and interests. This may include but is not limited to:

- a) site visit and consultative hui;
- b) archaeological assessment (walk over/test pitting), or a full archaeological description;
- c) preparation of a Cultural Impact Assessment; and
- d) co-design of proposed conditions of consent.

Pol. TTAN4.6

Require subdivision proposals in Te Atiawa rohe to manage the impact on wāhi tapu/wāhi taonga, urupā and sites of significance to Māori that are discovered during land disturbance by:

- a) cultural monitors onsite for all land disturbance;
- b) requiring an On-Call Procedure which is approved by Ngā Hapū o Te Atiawa for the discovery of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;

- c) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and
- d) undertaking appropriate measures to avoid adverse effects on wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

Pol. TTAN4.7

Require that methods for on-going protection/management of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori are secured at the time of subdivision.

Practise note: This could be given effect to by requiring a consent notice under Section 221 of the Resource Management Act 1991 on any new Computer Freehold Titles.

Pol. TTAN4.8

Require early and effective consultation on and the use of Te Atiawa names for new subdivisions or roads.

Pol. TTAN4.9

Require planting of site-specific native vegetation as a condition of any resource consent.

Pol. TTAN4.10

Require setback areas along the river and stream boundaries at the time of subdivision development. These reserves or set back areas should be at least 20 metres.

Pol. TTAN4.11

Require setback area agreements include clauses that provide for the protection of waterways, access to those waterways, provision for wildlife corridors, and connectivity between environments and future communities.

Pol. TTAN4.12

Require that all setback areas are planted with sites-specific native species to provide protection for the waterways, ensuring that access is not restricted.

Pol. TTAN4.13

Encourage retaining the natural landform and topography within the subdivision.

Pol. TTAN4.14

Encourage and support Te Atiawa, as a property developer, to set the highest possible standard of best practice for land developments in the rohe.

PAPAKĀINGA

Te Take – Issue

Issue TTAN5: The right to reside on, use and develop ancestral land is inhibited by land zoning rules, housing density rules, provision of infrastructure and services, and multiple ownership.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN5.1

Enable Te Atiawa to maintain or re-establish connections to our Māori identity, culture, whānau, and whenua.

Ob. TTAN5.2

New papakāinga will promote sustainable living and implement low impact, innovative and sustainable solutions to water, stormwater, waste and energy issues.

Ngā Kaupapa – Policies

Pol. TTAN5.1

Require that regional and district councils recognise that the development of papakāinga and/or marae, and activities associated with these developments, are appropriate when undertaken by Te Atiawa on our ancestral lands in a manner that supports and enhances our culture, traditions and relationship with those lands.

Pol. TTAN5.2

Require district and regional planning documents to recognise and provide for papakāinga and marae, and activities associated with these developments, through establishing specific objectives, policies and rules.

Practise note: The objectives should identify the importance of papakāinga to Te Atiawa and our relationship to our ancestral lands, and policies and rules on zoning and housing density should allow papakāinga, marae and for mixed use development.

Pol. TTAN5.3

Require that district planning documents provide access to Māori land at the time of road closure.

LAND DISTURBANCE

Te Take – Issue

Issue TTAN6: Land disturbance activities can damage and destroy wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN6.1

Wāhi tapu/wāhi taonga, urupā and sites of significance to Māori are protected from damage, modification, desecration or destruction.

Ngā Kaupapa – Policies

Pol. TTAN6.1

Prohibit damage, modification, desecration, destruction of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

Pol. TTAN6.2

Require that all resource applications made under the Resource Management Act 1991 involving land disturbance activities provisions are made for any or all of the following:

- a) consultative site visit and hui;
- b) plans for development are certified by Te Atiawa, this includes but is not limited to quantity of land disturbance, building platforms (topsoil clearance and any contouring), trenching in relation to stormwater, wastewater and telecommunication services;
- c) archaeological assessment (walk over/test pitting), or a full archaeological description;
- d) preparation of a Cultural Impact Assessment;
- e) cultural monitoring; and
- f) recommended consent conditions or consent notices.

Pol. TTAN6.3

Require that all resource applications made under the Resource Management Act 1991 involving land disturbance activities (e.g landuse consent, building consent and earthworks consent regardless of the permitted earthworks thresholds) are assessed with particular regard to:

- a) potential effects on known and unknown wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- b) potential effects on Te Atiawa Statutory Acknowledgement waterways and important habitats such as wetlands and waipuna;
- c) potential effects on indigenous biodiversity;
- d) potential effects on natural and cultural landforms;
- e) management measures such as erosion and silt control methods.

Pol. TTAN6.4

Require regional and district councils and applicants recognise Heritage New Zealand Pouhere Taonga and their legal obligations under the Heritage New Zealand Pouhere Taonga Act 2014 to manage activities where there is any potential to damage, modify or destroy an archaeological site.

Pol. TTAN6.5

Require that Heritage New Zealand Pouhere Taonga, regional and district councils recognise and provide for Te Atiawa to identify wāhi tapu/wāhi taonga, urupā and sites of significance to Māori that must be protected from development, and therefore an Archaeological Authority to damage, modify, desecrate or destroy a site is not granted.

Pol. TTAN6.6

Require that native vegetation removed or damaged during land disturbance is replaced to a level that results in a net biodiversity benefit.

Pol. TTAN6.7

Require adequate sediment and silt control measures adjacent to Te Atiawa Statutory Acknowledgement waterways, including but not limited to:

- a) minimising the extent of land cleared and left bare at any given time; and
- b) capture of run-off and sediment via control such as silt traps and fences, and these structures are monitored and cleared regularly to ensure effectiveness.

STORMWATER MANAGEMENT

Te Take – Issue

Issue TTAN7: The discharge of contaminated stormwater from activities within urban, rural, commercial and industrial environments can generate unacceptable effects on Te Atiawa values and on water quality, water quantity, and incremental and cumulative effects on the entire catchment.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN7.1

Achieve a “zero stormwater discharge off-site” approach which utilises the natural ability of Awhi-Nuku to filter and cleanse stormwater before entering a waterbody.

Ngā Kaupapa – Policies

Pol. TTAN7.1

Require that stormwater is managed on-site in all new applications to develop within the urban, rural, commercial and industrial environments.

Pol. TTAN7.2

Oppose discharging stormwater directly into rivers, streams, tributaries and wetlands.

Pol. TTAN7.3

Require that regional and district councils recognise and provide for the incremental and cumulative effects of stormwater discharges when developing planning documents, and assessing resource consents.

Pol. TTAN7.4

Require the use of sustainable stormwater management designs, including but not limited to the use of one or preferably a combination of the following:

- a) Swales;
- b) Wetlands; and
- c) System designed to dissipate water and filter contaminants and sediment.

Pol. TTAN7.5

Require that all low impact stormwater management systems are planted with site-specific native species (not grass), focusing on their ability to absorb water and filter contaminants.

Pol. TTAN7.6

Require the design of stormwater management systems within urban environments to provide for multiple uses/outcomes.

Practise note: It is intended that the implementation of this policy will include systems forming part of an open space network which can provide amenity values, recreation, habitat for species and customary use.

Pol. TTAN7.7

Oppose the use of blanket/global consents for activities associated with the management of stormwater discharges.

Pol. TTAN7.8

Require applicants to enhance existing water quality in the catchment downstream of developments by improving stormwater management design, planting with site-specific native species (not grass) and implementing or supporting existing restoration initiatives.

Pol. TTAN7.9

Support the development and use of Integrated Catchment Management Planning as a tool to manage stormwater and the effects on Te Atiawa values, and to inform the development of planning documents and assessment of resource consents.

WASTE MANAGEMENT

Te Take – Issue

Issue TTAN8

Disposal and management of waste can generate adverse effects on Te Atiawa values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN8.1

Waste minimisation as a key principle and approach to waste management.

Ob. TTAN8.2

Work towards achieving zero waste at our marae, by reducing the waste we produce, and adopt composting and recycling programs.

Ngā Kaupapa – Policies

Pol. TTAN8.1

Require that regional and district councils recognise the cultural issues associated with:

- a) utilising water as a receiving environment for waste; and
- b) ensuring there is adequate separation between waste and mahinga kai.

Pol. TTAN8.2

Require on-site solutions to wastewater that avoid waste entering the stormwater system, waterways and ocean.

Pol. TTAN8.3

Require on-site solutions that stop heavily contaminated stormwater entering the wastewater system.

Pol. TTAN8.4

Oppose the use of waterways and the ocean as a direct receiving environment for waste.

Pol. TTAN8.5

Oppose the use of blanket/global consents for activities associated with the management of waste water discharges.

DISCHARGE TO LAND

Te Take – Issue

Issue TTAN9: Discharges to land can generate adverse effects on soil health and water quality.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN9.1

Use and development of land is done in a manner that ensures discharges are managed on-site utilising the land as a filter.

Ngā Kaupapa – Policies

Pol. TTAN9.1

Require that all discharges to land are going onto appropriate soil types and topography.

Pol. TTAN9.2

Avoid over saturation and over contamination of soil.

Pol. TTAN9.3

Require regular monitoring of soil, groundwater and surface water where discharges are going onto land in our Te Atiawa rohe and send these reports to Te Atiawa.

Pol. TTAN9.4

Where monitoring shows that the accumulation of contaminants is affecting the mauri of the soil and land, discharge activities shall cease until this is rectified.

Practise note: To determine whether the mauri of an area has been impacted upon a Cultural Impact Assessment must be undertaken. For the avoidance of doubt refer to Section 5.2 for Te Atiawa Planning and Monitoring Tools.

CONTAMINATED LAND

Te Take – Issue

Issue TTAN10: Inappropriate activities have resulted in land contamination.

The objectives and policies to address this issue within the Te Atiawa rohe are:

Ngā Paetae – Objectives

Ob. TTAN10.1

Use and development of land is done in a manner where levels of contamination are maintained below the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 and subsequent amendments.

Ngā Kaupapa – Policies

Pol. TTAN10.1

Require that land owners identify and appropriately manage the following issues:

- a) Nature of contamination;

- b) Level of contamination/environmental risk;
- c) Where the contaminated land originated (if moved);
- d) Potential leaching and run-off;
- e) Proposed land changes;
- f) Remediation of land to a clean condition if soil testing results show that contamination is over guideline levels; and
- g) cost of remediation remains with original owner of the contamination.

Pol. TTAN10.2

Require monitoring of closed land fills to determine the level of contamination within soil and groundwater.

Pol. TTAN10.3

Require remedial works at closed land fills to remove contamination if result of monitoring show that contamination is over guidelines levels.

Pol. TTAN10.4

Require involvement in decision-making relating to the establishment of any new land fills, contaminated land facilities and storage facilities for contaminants.

ONSHORE PETROLEUM AND MINERAL PROSPECTING, EXPLORATION AND EXTRACTION ACTIVITIES

Te Take – Issue

Issue TTAN11: Onshore oil and gas exploration and mineral extraction can generate adverse effects on the landscape, environment and cultural values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAN11.1

To transfer petroleum and mineral ownership rights to Te Atiawa within our Te Atiawa rohe.

Ob. TTAN11.2

Provide for involvement of Te Atiawa in decision-making relating to the release of future petroleum and minerals permits.

Ngā Kaupapa – Policies

Pol. TTAN11.1

Oppose petroleum and minerals activities that affect and contribute towards climate change and global warming.

Pol. TTAN11.2

Require that royalties are paid to Te Atiawa for all revenue generated from the development of petroleum and mineral resources within the rohe of Te Atiawa.

Pol. TTAN11.3

Require that New Zealand Petroleum and Minerals implement the protocol with Te Atiawa and comply with consultation requirements set out in the Minerals Programme for Petroleum (2005) and Minerals Programme for Minerals (2008) as well as recognition of Tiriti requirements under the Crown Minerals Act 1991, including kanohi ki te kanohi meetings with Te Atiawa to understand their programmes for mineral resources and petroleum.

Pol. TTAN11.4

Require that New Zealand Petroleum and Minerals and applicant companies engage in early kanohi ki te kanohi consultation with Te Atiawa for any proposed block offers or permit applications.

Pol. TTAN11.5

Require that Te Atiawa values and interests are recognised and provided for in the Block Offer tendering and permit application process. This may include provision for conditions of consent requiring the preparation of a Cultural Impact Assessment.

Pol. TTAN11.6

Exclude areas of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori from an onshore exploration permit block or minerals programme using Section 15(3) of the Crown Minerals Act 1991 (CMA) and the Minerals Programme for Petroleum (2005) provisions.

Pol. TTAN11.7

Require that all applications relating to petroleum and mineral activities avoid:

- a) Damage to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- b) Damage to native forest ecosystems, and areas of habitat for native species and biodiversity;
- c) Contamination of waterways; and
- d) Damage to culturally important landscapes.

Pol. TTAN11.8

Require that all consents pertaining to an oil and gas activity are bundled to understand the cumulative effects of the entire activity, specifically land use consents to explore and develop sites are applied for and evaluated alongside resource consents to discharge, install and maintain pipelines and restore the site.

Pol. TTAN11.9

Require management plans for:

- a) earthworks, erosion and sediment control, waterway protection, on site stormwater treatment and disposal and provisions for visual screening/ barriers that include indigenous vegetation; and
- b) site rehabilitation plans that utilise indigenous plants species.

Pol. TTAN11.10

Require that all structures both above and below ground are decommissioned and removed, provided the environmental impact is acceptable, and sites are remediated and restored following the completion of petroleum and mineral activities.

Policies Specific to Onshore Petroleum Activities**Pol. TTAN11.11**

Oppose any application for onshore petroleum activities within our Te Atiawa rohe which use hydraulic fracturing.

Pol. TTAN11.12

Oppose any application for seismic survey activity for onshore petroleum activities on or near wāhi tapu/ wāhi taonga, urupā and sites of significance to Māori.

Policy Specific to Onshore Mineral Activities**Pol. TTAN11.13**

Oppose any application for mineral mining activities within river beds and associated shale banks, streams, tributaries and wetlands.

6.3 TE TAI O MARU - FRESHWATER

Maru is the personification of the freshwater ecosystem. All water originated from the separation of Papatūānuku and Ranginui. Water sustains the growth of plants, animals and our people. It is fundamental to all aspects of life and is essential to our health and wellbeing. As kaitiaki, Te Atiawa are responsible for protecting, maintaining and enhancing the mauri of Maru.

In resource management, Te Mana o Te Wai is a matter of national importance that must be recognised and provided for. This section provides context to this matter of national importance within our Te Atiawa rohe.

The relationship between Te Atiawa and freshwater is acknowledged by the Crown through Statutory Acknowledgements in the Te Atiawa Deed of Settlement which includes all waterways within our Te Atiawa rohe. A statutory acknowledgement requires that all consent authorities must send to Te Atiawa (see Section 4.3 Dual Notification) copies of any consent for an activity within, adjacent to or impacting directly on these areas. A copy of the Statutory Acknowledgements and Statements of Association are included at Schedule 1.

This section addresses issues in the rohe of Te Atiawa relating to Te Tai o Maru and covers issues such water quality and quantity, mixing of mauri, management of streams and wetlands, and access to these waterbodies. This section should be read in conjunction with Section 6.1.

WHAKARĀPOTO NGĀ TAKE - SUMMARY OF ISSUES

The Te Tai o Maru issues within our Te Atiawa rohe are summarised below:

TE TAI O MARU	
Ngā Take - Issues	
Issue Te Tai o Maru(TTOM)1: Water Management	Inappropriate management of water resources including historic activities and events have generate adverse effects on Te Atiawa values.
Issue TTOM2: Statutory Acknowledgements	The lack of recognition of Te Atiawa Statutory Acknowledgements waterways and the cultural values associated with these areas being weighted appropriately during decision-making may generate adverse effects on Te Atiawa values.
Issue TTOM3: Freshwater Quality	Discharges of contaminants, low flows and loss of wetlands and riparian areas will generate adverse effects on water quality, mahinga kai species and customary use activities.
Issue TTOM4: Freshwater Quantity	Over-allocation of freshwater resources may generate adverse effects on mauri, mahinga kai habitat and species and customary use activities.
Issue TTOM5: Mixing of Water and Mauri	The mixing of water from different catchments and sources can have adverse effects on mauri.
Issue TTOM6: Beds and Margins of Waterways and Lake	Activities within the beds and margins of rivers, streams, tributaries, wetlands and lakes can affect Te Atiawa cultural values, water flow, mahinga kai habitat and species, customary use activities and bed/margin integrity.

Issue TTOM7: Access to Waterways	Loss of access to ancestral mahinga kai areas and sites of significance to Māori may generate adverse effects on Te Atiawa values.
Issue TTOM8: Customary, Recreational and Commercial Fishing	Unsustainable freshwater fishing activities may generate adverse effects on fish stocks within our Te Atiawa rohe.

NGĀ PAETAĒ - GENERAL OBJECTIVES

Gen. Ob. Te Tai o Maru (TTOM)1.1

Ensure the principle of Te Mana o Te Wai set out in the National Policy Statement for Freshwater Management 2014 is implemented in our Te Atiawa rohe.

Gen. Ob. TTOM1.2

Te Atiawa's relationship with water resources is recognised, respected, enhanced and protected.

Gen. Ob. TTOM1.3

Te Atiawa's rights to Freshwater be acknowledged through all allocation mechanisms and policies

Gen. Ob. TTOM1.4

Point source discharges and the use of water as a receiving environment is avoided. In essence, no new consents to discharge contaminants to waterbodies are issued, no existing consents are reissued and the surrender of existing consents is encouraged, as a matter of priority.

Gen. Ob. TTOM1.5

The mauri of freshwater resources is protected and enhanced in order to protect indigenous flora and fauna, provide a supply of drinkable water and enable the continuation of customary activities.

Gen. Ob. TTOM1.6

Land, groundwater, surface water and coastal waters are connected and therefore managed as interconnected resources.

Gen. Ob. TTOM1.7

Waterbodies are protected by lush, healthy riparian margins and are fenced to protect from stock.

Gen. Ob. TTOM1.8

Waterbodies that originate or migrate through urban and industrial areas are restored to their previous condition, wherever possible, through techniques such as daylighting.

Gen. Ob. TTOM1.9

Activities that result in human wastewater being discharged directly or indirectly into waterbodies are prohibited.

NGĀ KAUPAPA - GENERAL POLICIES

Gen. Pol. TTOM1.1

Require that central government agencies, regional and district councils and any other consenting authority recognise and provide for the relationship of Te Atiawa with our ancestral waters, which includes Te Atiawa Statutory Acknowledgement waterways, in freshwater management and decision making.

Gen. Pol. TTOM1.2

Require that central government agencies, regional and district councils and any other consenting authority recognise that:

- The relationship of Te Atiawa to freshwater is fundamental to Te Atiawa's culture and cultural well-being;
- Te Atiawa's rights, interests and responsibilities associated with freshwater are intergenerational; and
- Te Atiawa's rights and interests in freshwater resources in our Te Atiawa rohe are cultural, customary and economic in nature and that future allocation mechanisms reflect this

Gen. Pol. TTOM1.3

Require that central government agencies, regional and district councils and any other consenting authority recognise that only Te Atiawa can identify the impact of activities on the relationship with our ancestral waters, which includes Te Atiawa Statutory Acknowledgement waterways.

Gen. Pol. TTOM1.4

Require that central government agencies, regional and district councils and any other consenting authority engage with Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any application made under the Resource Management Act 1991 which may affect Te Atiawa's Statutory Acknowledgement Area waterways.

Gen. Pol. TTOM1.5

Require freshwater related activities to occur in a manner that is consistent with freshwater health, capacity, availability and limits, and the overall capacity of catchments.

Gen. Pol. TTOM1.6

Support Te Atiawa in the development and use of mātauranga Māori monitoring techniques. This includes, but is not limited to, Cultural Health Index to assess the health of Te Tai o Maru.

Practise Note: For the avoidance of doubt refer to Section 5.2 for Te Atiawa Planning and Monitoring Tools.

WATER MANAGEMENT

Te Take – Issue

Issue TTOM1: The inappropriate management of water resources may generate adverse effects on Te Atiawa values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOM1.1

Remediate and protect Te Atiawa Statutory Acknowledgement waterways

Ngā Kaupapa – Policies

Pol. TTOM1.1

Require that central government agencies, regional and district councils and any other consenting authority develop freshwater management policies, plans and processes that recognise and provides for the relationship Te Atiawa has with freshwater. This may include but is not limited to:

a) Te Atiawa are engaged in current and future freshwater management and our cultural values are weighted appropriately in planning and decision-making;

- b) Policies, plans and rules on taking, use, damming, diversion and discharge of water are developed to protect Te Atiawa's relationship with freshwater, as a taonga, and as a matter of national importance;
- c) Integrated Catchment Management Plans are developed and implemented for all Te Atiawa's catchments to ensure the incremental and cumulative effects within catchments are managed appropriately;
- d) Recognition and use of Te Atiawa's Cultural Health Index monitoring to determine baseline information of freshwater resources and assess changes overtime; and
- e) Recognition and use of customary management tools such as rāhui in accordance with tikanga and freshwater mātaimai.

STATUTORY ACKNOWLEDGEMENTS

Te Take – Issue

Issue TTOM2: The lack of recognition of Te Atiawa Statutory Acknowledgements and the cultural values associated with these areas being weighted appropriately during decision-making may generate adverse effects on Te Atiawa values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOM2.1

Support General Objectives which provide for Te Tai o Maru.

Ngā Kaupapa – Policies

Pol. TTOM2.1

Require central government agencies, regional and district councils and any other consenting authority to recognise the intent of Statutory Acknowledgements within our Te Atiawa rohe. Including but is not limited to:

- a) Central government agencies, regional and district councils and any other consenting authority provide Te Kotahitanga with summaries of all applications made under the Resource Management Act 1991 for activities within, adjacent to or impacting directly on Statutory Acknowledgements;
- b) Central government agencies, regional and district councils and any other consenting authority continuing to have regard to Statutory Acknowledgements and identifying Te Kotahitanga and Ngā Hapū o Te Atiawa as

- affected parties; and
- c) Te Atiawa continuing to use Statutory Acknowledgements and their Statements of Association in submissions to consent authorities, the Environment Court and Heritage New Zealand Pouhere Taonga, to demonstrate Te Atiawa's relation with those areas.

Te Atiawa Statutory Acknowledgement waterways and the statements of association are included at Schedule 1.

FRESHWATER QUALITY

Te Take – Issue

Issue TTOM3: Discharges of contaminants, low flows and loss of wetlands and riparian areas generate adverse effects on Te Atiawa values, water quality, mahinga kai species and customary use activities.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOM3.1

Discharges of contaminants, low flows and loss of wetlands and riparian areas are managed to ensure water quality is improved.

Ob. TTOM3.2

Water quality is of a sufficient standard within our Te Atiawa rohe to enable mahinga kai species to thrive.

Ngā Kaupapa – Policies

Pol. TTOM3.1

Acknowledge that freshwater quality is as matter of national importance, including waterbodies and catchments within our Te Atiawa rohe.

Pol. TTOM3.2

Require water quality to be of a standard that Te Atiawa can practise mahinga kai/food gathering without risks to human health.

Pol. TTOM3.3

Avoid any point source discharges of contaminants to water, and to land where contaminants may enter the water.

Pol. TTOM3.4

Require that consented discharges to land activities are managed and monitored appropriately. This includes, but is not limited to, provision for conditions of consent requiring:

- a) contaminants be managed on-site rather than being discharge off-site;
- b) application rates are implemented that avoid over saturation and nutrient loading;
- c) adequate setback distances from waterbodies; and
- d) establishment of riparian margins and wetlands, and planted swales with site-specific native vegetation, as natural filtration for contaminants.

Pol. TTOM3.5

Require that regional council do not issue new consents to discharge contaminants to waterbodies, do not renew existing consents and encourage the surrender of existing consents, as a matter of priority.

Pol. TTOM3.6

Oppose the use of blanket/global consents for activities which may generate adverse effects on water quality.

Pol. TTOM3.7

Require the restoration of wetlands and riparian areas with site-specific native vegetation to filter contaminants as part of maintaining and improving water quality.

Pol. TTOM3.8

Require fencing of all wetland and riparian areas to exclude stock and reduce erosion.

Pol. TTOM3.9

Require that regional council prohibit any further drainage, destruction or modification of remnant wetlands or existing native riparian vegetation.

Pol. TTOM3.10

Require that regional council meaningfully undertake enforcement action if conditions on water discharge consent are breached.

FRESHWATER QUANTITY

Te Take – Issue

Issue TTOM4: Over-allocation of freshwater resources will generate adverse effects on mauri, mahinga kai habitat and species and customary use activities.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOM4.1

Ensure freshwater resources continue to provide sustenance to our people.

Ngā Kaupapa – Policies

Pol. TTOM4.1

Require that as a Treaty partner we are given water allocation rights.

Pol. TTOM4.2

Require that environmental flow and water allocation limits are set on all waterways within our Te Atiawa rohe.

Pol. TTOM4.3

Require immediate action to investigate over allocation of freshwater within our Te Atiawa rohe. This may include but is not limited to:

- a) review all existing consents using metering to determine actual use;
- b) cancel all consents not being given effect to;
- c) surrender all unused allocations;
- d) oppose the transfers of unused water allocation;
- e) following this, determine the baseline condition of surface water and ground water resources and monitor how they respond to the above actions (a-d).
- f) Review freshwater and land management planning documents accordingly, for example if over allocation still presents as an issue assess whether land use and associated water use requires changing.

Pol. TTOM4.4

Require immediate action in catchments where abstraction is close to being over allocated, as a matter of priority.

Pol. TTOM4.5

Require that consents to take water remain with the land where they are allocated and therefore are specific to a waterway or aquifer, and not with a consent holder. Furthermore, require that if the land is sold and the land use changes, the new owner must reapply for another consent to take water.

Pol. TTOM4.6

Require water efficiency measures at site, including but not limited to:

- a) rainwater storage tanks;
- b) reuse of greywater;
- c) reduced flow or use low flow devices (low flush toilets and efficient showerheads) and water efficient appliances;
- d) metering of use;
- e) soil moisture monitoring; and
- f) efficient irrigation technology.

Pol. TTOM4.7

Oppose the use of blanket/global consents for activities which may generate adverse effects on water quantity.

Pol. TTOM4.8

Require that regional council meaningfully undertake enforcement action if conditions on water take consents are breached.

MIXING OF WATER AND MAURI

Te Take – Issue

Issue TTOM5: The mixing of water from different catchments and sources can have adverse effects on mauri.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOM5.1

The mauri or life supporting potential of freshwater resources is protected and enhanced.

Ngā Kaupapa – Policies

Pol. TTOM5.1

Require that all proposals resulting in mixing of water are assessed by Te Atiawa on a case-by-case basis.

Pol. TTOM5.2

Restrict the direct mixing between rain or spring fed waters; waters used for different purposes; water between different catchments; and water from different aquifers.

Pol. TTOM5.3

Support the mixing of waters that already mix naturally within the same catchment; waters that are of same type (e.g. springfed to springfed); and waters that are filtered through wetlands and riparian margins.

BEDS AND MARGINS OF WATERWAYS AND LAKES

Te Take – Issue

Issue TTOM6: Activities within the beds and margins of rivers, streams, tributaries, wetlands and lakes can affect Te Atiawa cultural values, water quality and flow, mahinga kai habitat and species, customary use activities and bed/margin integrity.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOM6.1

Provide for sustainable uses of beds and margins while avoiding adverse effects on their natural character and their ability to support flora and fauna.

Ngā Kaupapa – Policies

Pol. TTOM6.1

Require planting of sites-specific native riparian vegetation along Te Atiawa Statutory Acknowledgement waterways.

Pol. TTOM6.2

Require that Te Atiawa Statutory Acknowledgement waterways have setback areas from residential, commercial or urban activities of at least 20 metres.

Practise note: It is expected that the implementation of this policy will provide protection for the waterways, access to those waterways, provision for wildlife corridors, and connectivity between environments and future communities.

Pol. TTOM6.3

Require that all waterways have set back areas from rural activities of either;

- a) 20 metres; or
- b) 5 metres where the area is well planted to ensure protection of water quality and prevention of stock accessing these waterways.

Pol. TTOM6.4

Require that all set back areas are planted with site-specific native vegetation to provide protection for waterways.

Pol. TTOM6.5

Require that all works in the beds and margins of waterways and lakes are undertaken in a manner that:

- a) protects waterbodies from disturbance; and
- b) mahinga kai habitats and species are not affected as a result of these activities.

Pol. TTOM6.6

Require that all loss or damage of riparian vegetation as a result of any works is restored with site-specific native riparian species.

Pol. TTOM6.7

Oppose the use of blanket/global consents for earthworks in the beds and margins of waterways and lakes.

Pol. TTOM6.8

Require that all structures in beds and margins of waterways and lake support and enable fish passage for migratory native species.

Pol. TTOM6.9

Oppose all inappropriate rural activities in beds and margins of waterways and lakes, including the conversion to pasture or cropping, and grazing of stock.

Pol. TTOM6.10

Oppose man-made alterations to river courses.

Pol. TTOM6.11

Require consent applications to extract gravel from waterways and lakes are assessed for the following:

- a) cultural values associated with the river (e.g. mahinga kai habitats and species);
- b) volume of material to be extracted and timing of the extraction;

- c) how to avoid (rather than remedy or mitigate) the adverse effects;
- d) provision of consent conditions to monitor the impact of the extraction; and
- e) the cumulative effects of extraction.

Pol. TTOM6.12

Oppose the extraction of gravel from streams for quarrying or other commercial purposes.

Pol. TTOM6.13

Require that regional council meaningfully undertake enforcement action if structures are installed within beds and margins of waterways and lakes without a consent.

ACCESS TO WATERWAYS

Te Take - Issue

Issue TTOM7: Loss of access to waterways, ancestral mahinga kai areas and sites of significance to Māori will generate adverse effects on Te Atiawa values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTOM7.1

To obtain access to our ancestral mahinga kai areas and sites of significance to Māori along Te Atiawa Statutory Acknowledgement waterways.

Ngā Kaupapa - Policies

Pol. TTOM7.1

Require and be provided access to mahinga kai areas and sites of significance to Māori through set back areas (through esplanade strips/reserves, easements, access strips or any other legal mechanism) at the time of subdivision development.

Pol. TTOM7.2

Identify and secure opportunities for access to mahinga kai areas, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori at the time of subdivision.

Pol. TTOM7.3

Require public access to be restricted along waterbodies where it would result in adverse effects

on mahinga kai areas, wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

Practise note: the use of tools such as rāhui are anticipated in the implementation of this policy on either a temporary or permanent basis.

FRESHWATER CUSTOMARY, COMMERCIAL AND RECREATIONAL FISHING

Te Take - Issue

Issue TTOM8: Unsustainable freshwater fishing activities will generate adverse effects on fish stocks within our Te Atiawa rohe.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTOM8.1

Ensure the sustainable management of customary, commercial and recreational freshwater fishing.

Ob. TTOM8.2

Ensure fishing activities do not impact on the environment and Te Atiawa values.

Ngā Kaupapa - Policies

Pol. TTOM8.1

Require research and monitoring of customary, commercial and recreational freshwater fish stocks and the effects of fishing on these stocks.

Pol. TTOM8.2

Require that structures built within the freshwater environment do not affect fish stock and riverbed habitat.

Pol. TTOM8.3

Require the establishment and use of traditional and non-traditional fisheries management techniques within our Te Atiawa rohe to protect and enhance freshwater fish stocks. This includes the following techniques:

- a) Temporary closures - Section 186 A & B of the Fisheries Act 1996 gives the Minister of Fisheries or the Chief Executive of the Ministry of Fisheries to authorisation to temporarily close an area to fishing. The Ministry of Health or the Chief Executive of the Ministry of Health has the authorisation to temporarily close an area to fishing.

Policies Specific to Customary Fishing

Pol. TTOM8.4

Identify opportunities to work with whanaunga iwi to sustainably manage customary fisheries.

Pol. TTOM8.5

Identify opportunities for Te Atiawa to use rāhui in accordance with tikanga to protect and enhance freshwater fish stocks.

Pol. TTOM8.6

Encourage the use of traditional fishing methods.

Policies Specific to Commercial Fishing

Pol. TTOM8.7

Require that Department of Conservation, and other consenting authorities who manage freshwater fisheries, provide Te Atiawa with the opportunity for effective input and participation into planning reviews and development.

Policies Specific to Recreational Fishing

Pol. TTOM8.8

Identify opportunities for Te Atiawa to use rāhui in accordance with tikanga to protect and enhance freshwater fish stocks.

6.4 TE TAI O TANGAROA - COASTAL AND MARINE ENVIRONMENT

Tangaroa is the personification of the marine ecosystem. The relationship between Te Atiawa and Tangaroa is of utmost importance to us. We continue to uphold our customs and traditions in the coastal environment, and replenish our wairua (spirit), regardless of these lands being confiscated.

Prior to confiscation, the entire coastline from Te Rau o Te Huia to Herekawe Stream was critical to every day life. Te Atiawa occupied, cultivated, harvested, fished and gathered kai here and buried our tūpuna. Today, the coastal waters, species and habitats have been degraded by inappropriate use and development. As kaitiaki, we have the responsibility to look after the coastal environment for current and future generations.

In resource management, specifically in accordance with the New Zealand Coastal Policy Statement (2010), the traditional and continuing cultural relationship that Te Atiawa has with our takutai moana must be recognised and provided for. This section provides context to this matter within our Te Atiawa rohe.

This relationship Te Atiawa has with the takutai moana is acknowledged by the Crown through the Te Atiawa Coastal Marine Area Statutory Acknowledgement in the Te Atiawa Deed of Settlement.

This Statutory Acknowledgement Area and Statement of Association is included at Schedule 1.

This section addresses issues in our Te Atiawa rohe relating to Te Tai o Tangaroa and covers issues such as customary rights, statutory acknowledgements, water quality, coastal habitats, coastal land use and development, offshore petroleum and mineral activities, fisheries, aquaculture, stranded marine mammals, freedom camping and coastal access. This section should be read in conjunction with Section 6.1.

WHAKARĀPOTO NGĀ TAKE - SUMMARY OF ISSUES

The Te Tai o Tangaroa issues within the rohe of Te Atiawa are summarised below:

TE TAI O TANGAROA	
Ngā Take - Issues	
Issue Te Tai o Tangaroa (TTOT)1: Acknowledgement of Coastal Customary Rights and Interests	The lack of acknowledgement of customary rights and interests associated with the takutai moana (coast, foreshore and seabed).
Issue TTOT2: Recognition of Statutory Acknowledgements	The lack of acknowledgement of Statutory Acknowledgements within the coastal environment.
Issue TTOT3: Coastal Water Quality	Coastal water quality is degraded in some areas as a result of direct discharges of contaminants and indirect pollution from urban, rural and industrial activities.
Issue TTOT4: Coastal Wetlands, Estuaries and Islands	Coastal developments can generate adverse effects on ecological and cultural values associated with coastal wetlands, estuaries and islands.
Issue TTOT5: Coastal Land Use and Development	Inappropriate land use and development within the coastal area can generate adverse effects on Te Atiawa values.

Issue TTOT6: Offshore Petroleum and Mineral Prospecting, Exploration and Extraction Activities	Offshore petroleum and mineral activities can have adverse effects on the seascape, environment and Te Atiawa cultural values.
Issue TTOT7: Marine and Coastal Customary, Recreational and Commercial Fishing	Unsustainable fishing activities will generate adverse effects on fish stocks within our Te Atiawa rohe.
Issue TTOT8: Aquaculture	The lack of acknowledgement of Te Atiawa rights and interests with regard to where and how aquaculture takes place in the coastal environment.
Issue TTOT9: Stranded Marine Mammals	Lack of protection for marine mammals who inhabit or transition through our Te Atiawa rohe and inappropriate processes for Te Atiawa's involvement in the recovery of stranded marine mammals may result in adverse effects on Te Atiawa's values.
Issue TTOT10: Freedom camping	Freedom camping may generate adverse effects in the coastal environment.
Issue TTOT11: Access to the coast	The loss of access to wāhi tapu/wahi taonga, sites of significance to Māori and mahinga kai areas located in the coastal environment.
Issue TTOT12: Coastal and marine wāhi tapu/wāhi taonga, urupā and sites of significance to Māori	The lack of protection for Te Atiawa coastal and marine wāhi tapu/wāhi taonga, urupā and sites of significance to Māori will generate adverse effects on Te Atiawa's values.

NGĀ PAETAĒ - GENERAL OBJECTIVES

Gen. Ob. Te Tai o Tangaroa (TTOT)1.1

Ensure that Policy two - the Treaty of Waitangi, Tangata Whenua and Māori - of the New Zealand Coastal Policy Statement (2010) is implemented within our Te Atiawa rohe.

Gen. Ob. TTOT1.2

Te Atiawa's relationship with the coastal and marine environment is acknowledged, respected and provided for in managing the coastal and marine environment.

Gen. Ob. TTOT1.3

Direct discharges of contaminants that contribute to pollution of the coastal environment are discontinued and remediated.

Gen. Ob. TTOT1.4

The avoidance of any new direct discharges of contaminants into the coastal environment.

Gen. Ob. TTOT1.5

Protection and enhancement of mahinga kai areas and species, and access provided to these resources.

Gen. Ob. TTOT1.6

The mauri of coastal water resources is protected and enhanced in order to protect indigenous flora and fauna, provide swimmable water and enable the continuation of customary activities.

Gen. Ob. TTOT1.7

Land, groundwater, surface water and coastal waters are connected and therefore managed as interconnected resources.

Te Atiawa Statutory Acknowledgements waterways and the coastal margin are protected by lush, healthy riparian vegetation and are fenced to exclude stock.

NGĀ KAUPAPA - GENERAL POLICIES

Gen. Pol. Te Tai o Tangaroa (TTOT)1.1

Require that central government agencies, regional and district councils and any other consenting authority acknowledge and provide for the relationship of Te Atiawa with our ancestral waters, which includes Te Atiawa Statutory Acknowledgement waterways, in coastal and marine management and decision-making.

Gen. Pol. TTOT1.2

Require that central government agencies, regional and district councils and any other consenting authority acknowledge that:

- a) The relationship of Te Atiawa to the coast is fundamental to who we are and embedded in the culture and cultural well-being of Te Atiawa;
- b) Te Atiawa's rights and responsibilities associated with the coast are intergenerational; and
- c) Te Atiawa's rights and interests in coastal resources in our Te Atiawa rohe are cultural, customary and economic in nature.

Gen. Pol. TTOT1.3

Require that central government agencies, regional and district councils and any other consenting authority recognise that only Te Atiawa can identify the effects of coastal activities on the relationship with our ancestral waters, which includes Te Atiawa Statutory Acknowledgement waterways in the coastal and marine environment.

Gen. Pol. TTOT1.4

Require that central government agencies, regional and district councils and any other consenting authority engage with Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any application made under the Resource Management Act 1991 which may affect Te Atiawa's ancestral waters, which includes Te Atiawa Statutory Acknowledgement waterways in the coastal and marine environment.

Gen. Pol. TTOT1.5

Support Te Atiawa in the development and use of mātauranga Māori monitoring techniques.

Gen. Pol. TTOT1.6

Support Te Atiawa performing customary rituals, ceremonies and activities such as rāhui in accordance with tikanga, that support our role as kaitiaki.

Gen. Pol. TTOT1.7

Oppose the use of blanket/global consents for activities which may generate significant adverse effects on Te Atiawa valuse and the

coastal environment.

ACKNOWLEDGEMENT OF COASTAL CUSTOMARY RIGHTS AND INTERESTS

Te Take - Issue

Issue TTOT1: The lack of acknowledgement of customary rights and interests associated with the takutai moana (coast, foreshore and seabed).

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTOT1.1

Seek recognition of Te Atiawa customary rights and interest in the common marine and coastal areas under the Marine and Coastal Area (Takutai Moana) Act 2011.

Ngā Kaupapa - Policies

Pol. TTOT1.1

Require an agreement between the Minister on behalf of the Crown and Te Atiawa that recognises the customary interests of Te Atiawa in the common marine and coastal area within our Te Atiawa rohe.

Pol. TTOT1.2

Require recognition and provision for the expression of mana over the foreshore and seabed and enable exercise of customary rights and interests over particular sites and areas within our Te Atiawa rohe.

ACKNOWLEDGEMENT OF COASTAL STATUTORY ACKNOWLEDGEMENTS

Te Take - Issue

Issue TTOT2: The lack of acknowledgement of Statutory Acknowledgements within the coastal environment.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTOT2.1

Support General Objectives which provide for Te Tai o Tangaroa.

Ngā Kaupapa – Policies

Pol. TTOT2.1

Require central government agencies, regional and district councils and any other consenting authority to recognise the intent of Statutory Acknowledgements within our Te Atiawa rohe. This includes but is not limited to:

- a) central government agencies, regional and district councils and any other consenting authority continuing to provide Te Kotahitanga with summaries of resource consent applications for activities within, adjacent to or impacting directly on Statutory Acknowledgements;
- b) central government agencies, regional and district councils and any other consenting authority continuing to have regard to Statutory Acknowledgements and identifying Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties; and
- c) Te Atiawa continuing to use Statutory Acknowledgements and their Statements of Association in submissions to consent authorities and all other forums as necessary, to demonstrate Te Atiawa's relationship with those areas.

Te Atiawa Statutory Acknowledgement waterways and the statements of association are included at Schedule 1.

COASTAL WATER QUALITY

Te Take – Issue

Issue TTOT3: Coastal water quality is degraded in some areas as a result of direct discharges of contaminants and indirect pollution from urban, rural and industrial activities.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT3.1

Restore, protect and enhance the mauri of coastal water to provide for Te Atiawa values.

Ngā Kaupapa – Policies

Pol. TTOT3.1

Require water quality to be of a standard that Te Atiawa can practise mahinga kai/food gathering without risks to human health.

Pol. TTOT3.2

Require that central government agencies, regional and district councils and any other consenting authority discontinue existing discharges of contaminants to coastal water and reefs, as a matter of priority.

Pol. TTOT3.3

Avoid point source discharges directly into coastal waters, or discharges where contaminants have the potential to enter coastal waters.

Pol. TTOT3.4

Require the restoration of wetlands and riparian areas on the coastal margin with site-specific native vegetation to filter contaminants as part of maintaining and improving coastal water quality.

Pol. TTOT3.5

Require that controls be put in place within the coastal margin to minimise stock contributing to reduced water quality and coastal erosion.

COASTAL WETLANDS, ESTUARIES AND ISLANDS

Te Take – Issue

Issue TTOT4: Coastal developments can generate adverse effects on ecological and cultural values associated with coastal wetlands, estuaries and islands.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT4.1

Restore, protect and enhance the mauri of wetlands and estuaries which are valued sources of mahinga kai and cultural practices.

Ngā Kaupapa – Policies

Pol. TTOT4.1

Require that central government agencies, regional and district councils and any other consenting authority recognise coastal wetlands and estuaries as sites of significance to Māori for their mahinga kai values and cultural practices.

Pol. TTOT4.2

Require that freshwater quality and freshwater

allocation is a measure that provides environmental flow on effects for coastal wetlands and estuaries, and their mahinga kai species.

COASTAL LAND USE AND DEVELOPMENT

Te Take – Issue

Issue TTOT5: Inappropriate land use and development within the coastal area can generate adverse effects on Te Atiawa values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT5.1

Discontinue and remediate the inappropriate land use and development activities within the coastal area that impact on Te Atiawa cultural and environmental values.

Ngā Kaupapa – Policies

Pol. TTOT5.1

Require that regional and district councils acknowledge and provide for interests of Te Atiawa in coastal land development activities, including but not limited to:

- a) The protection of coastal headlands and skylines;
- b) The protection of coastal indigenous biodiversity, including remnant forest and endemic species;
- c) The protection of mahinga kai values;
- d) The protection of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- e) The protection of viewshafts to significant natural features and landmarks;
- f) Access to coastal areas for customary use;
- g) Te Atiawa aspirations for coastal areas, including the establishment of mātaihai and taiāpure;
- h) Avoid sedimentation and contamination of coastal waters; and
- i) Avoid increased pressure on existing water resources and community infrastructure.

Pol. TTOT5.2

Avoid potential adverse effects on kaimoana and mahinga kai species associated with any activity or development in the coastal environment.

Practise note: To determine whether an activity may impact upon these species a Cultural Impact Assessment must be undertaken pre and post activity. For the avoidance of doubt refer to Section 5.2 for Te Atiawa Planning and Monitoring Tools.

Pol. TTOT5.3

Require that regional and district councils acknowledge coastal areas identified as cultural landscapes by Te Atiawa.

Pol. TTOT5.4

Ensure the protection of cultural landscapes in the coastal environment from inappropriate coastal land use and development.

OFFSHORE PETROLEUM AND MINERAL PROSPECTING, EXPLORATION AND EXTRACTION ACTIVITIES

Te Take – Issue

Issue TTOT6: Offshore petroleum and mineral activities can have adverse effects on the seascape, environment and Te Atiawa cultural values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT6.1

Acknowledge and provide for Te Atiawa's ownership rights of petroleum and mineral resources within our Te Atiawa rohe.

Ob. TTOT6.2

Te Atiawa involvement in decision-making relating to the release of future petroleum and minerals permits is provided for.

Ngā Kaupapa – Policies

Pol. TTOT6.1

Require recognition of Te Atiawa's ownership rights of petroleum and mineral resources.

Pol. TTOT6.2

Require that there are no adverse effects on natural resources during the development of petroleum and mineral resources.

Pol. TTOT6.3

Require that the natural environment is remediated to pre-activity levels at the completion of activities.

Pol. TTOT6.4

Require recognition of Customary Marine Title and

ownership of petroleum and mineral resources under the Marine and Coastal Area (Takutai Moana) Act 2011.

Pol. TTOT6.5

Require that New Zealand Petroleum and Minerals implement the protocol with Te Atiawa and comply with consultation requirements set out in the Minerals Programme for Petroleum (2005) and Minerals Programme for Minerals (2008) as well as recognition of Treaty requirements under the Crown Minerals Act 1991, including kanohi ki te kanohi meetings with Te Atiawa to understand their programmes for Minerals and Petroleum.

Pol. TTOT6.6

Require that New Zealand Petroleum and Minerals and applicant companies engage in early kanohi ki te kanohi consultation with Te Atiawa for any proposed Block Offers or permit applications.

Pol. TTOT6.7

Require that Te Atiawa values are recognised and provided for in the Block Offer tendering and permit application process.

Practise note: This may include provision for conditions of consent requiring the preparation of a Cultural Impact Assessment.

Pol. TTOT6.8

Require the exclusion of areas of wāhi tapu/wāhi taonga, ūrupa and sites of significance to Māori from an offshore exploration permit block or minerals programme using Section 15(3) of the Crown Minerals Act 1991 (CMA) and the Minerals Programme for Petroleum (2005) provisions.

Policies Specific to Offshore Petroleum Activities

Pol. TTOT6.9

Oppose any application for offshore petroleum activities within our Te Atiawa rohe.

Pol. TTOT6.10

Require that Te Atiawa Marine Mammal Observers and Passive Acoustic Monitors are onboard for the duration of offshore seismic surveys within our Te Atiawa rohe, should they progress.

Policies Specific to Offshore Mineral Activities

Pol. TTOT6.11

Oppose any application for offshore mineral mining activities within our Te Atiawa rohe.

Pol. TTOT6.12

Require that Te Atiawa environmental monitors and Marine Mammal Observers are onboard for the duration of offshore mining activities within our Te Atiawa rohe.

MARINE AND COASTAL CUSTOMARY, COMMERCIAL AND RECREATIONAL FISHING

Te Take - Issue

Issue TTOT7: Unsustainable marine and coastal fishing activities may generate adverse effects on fish stocks within our Te Atiawa rohe.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTOT7.1

Ensure the sustainable management of customary, commercial and recreational marine and coastal fishing.

Ob. TTOT7.2

Ensure marine and coastal fishing activities do not impact on the environment and Te Atiawa values.

Ngā Kaupapa - Policies

Pol. TTOT7.1

Require research and monitoring of customary, commercial and recreational marine and coastal fish stocks and the effects of fishing on these stocks and seabed habitats.

Pol. TTOT7.2

Require structures built in the marine and coastal environment do not affect fish stock and seabed habitats.

Pol. TTOT7.3

Support the establishment and use of traditional and non-traditional marine and coastal fisheries management techniques within our Te Atiawa rohe to protect and enhance inshore fish stocks, provided that our traditional and customary rights remain. This includes the following techniques:

- b) Taiāpure - under the Fisheries Act 1996 these are fisheries of special significance to iwi as a source of kaimoana or for spiritual or cultural purposes;
- c) Mātaitai - under the Fisheries Act 1996 these are reserves of traditional importance to iwi. Mātaitai give iwi authorisation to manage and control non-commercial harvest of seafood. Iwi appoint

“Tangata tiaki” to manage the reserve through the making of bylaws which must be approved by the Minister of Fisheries and must apply to all individuals.

- d) Marine Reserves – under the Conservation Act 1987 these are areas of the sea and foreshore that are managed to preserve marine life in their natural habitat for scientific study;
- e) Temporary closures – Section 186 A & B of the Fisheries Act 1996 gives the Minister of Fisheries or the Chief Executive of the Ministry of Fisheries to authorisation to temporarily close an area to fishing. The Ministry of Health or the Chief Executive of the Ministry of Health has the authorisation to temporarily close an area to fishing.

Pol. TTOT7.4

Require Te Atiawa’s involvement in Ministry of Primary Industries decision-making in relation to the 6-monthly fisheries quota allocation.

Policies Specific to Marine and Coastal Customary Fishing

Pol. TTOT7.5

Require that only Ngā Hapū o Te Atiawa kaitiaki can issue customary fishing permits within their respective hapū boundaries.

Pol. TTOT7.6

Require members of Te Atiawa to utilise hapū kaitiaki to obtain customary fishing permits.

Pol. TTOT7.7

Require members of Te Atiawa to utilise the customary fishing regulations and obtain a permit before taking fish for customary purposes.

Pol. TTOT7.8

Identify opportunities to work with whanaunga iwi to sustainably manage customary fisheries.

Policies Specific to Marine and Coastal Commercial Fishing

Pol. TTOT7.9

Require that Ministry of Fisheries provide Te Atiawa with the opportunity for effective input and participation into the processes in accordance with the Fisheries Protocol within the Te Atiawa Deed of Settlement.

Pol. TTOT7.10

Oppose bottom trawling and set netting within our Te Atiawa rohe.

Pol. TTOT7.11

Require the development and use of sustainable fishing methods which reduce by-catch of non-target fish, sea birds and marine mammals.

Policies Specific to Marine and Coastal Recreational Fishing.

Pol. TTOT7.12

Identify opportunities for Te Atiawa to use rāhui in accordance with tikanga to protect and enhance inshore fish stocks.

AQUACULTURE

Te Take – Issue

Issue TTOT8: The lack of acknowledgement of Te Atiawa rights and interests with regard to where and how aquaculture takes place in the coastal environment.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT8.1

Involvement in aquaculture within the coastal environment that does not result in unacceptable effects on the environment and Te Atiawa values.

Ngā Kaupapa – Policies

Pol. TTOT8.1

Require that central government agencies, regional and district councils and any other consenting authority provide Te Atiawa with the opportunity for effective engagement in the development of aquaculture management areas.

Pol. TTOT8.2

Require that any aquaculture developments avoid adverse effects on the environment and Te Atiawa values.

Pol. TTOT8.3

Oppose the establishment of aquaculture developments on wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

STRANDED MARINE MAMMALS

Te Take – Issue

Issue TTOT9: Lack of protection for marine mammals that inhabit or transition through our Te Atiawa rohe and inappropriate processes for Te Atiawa's involvement in the recovery of stranded marine mammals may result in adverse effects on Te Atiawa's values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT9.1

Ensure the protection of marine mammals that inhabit or transition through the rohe of Te Atiawa.

Ob. TTOT9.2

Manage the recovery, disposal, storage and distribution of stranded marine mammals.

Ngā Kaupapa – Policies

Pol. TTOT9.1

Require that the Department of Conservation work in partnership with Te Atiawa throughout the recovery, disposal, storage and distribution of stranded marine mammals within our Te Atiawa rohe.

Pol. TTOT9.2

Require that the Department of Conservation handle the bodies of marine mammals in such a way that cultural material can be collected after.

Pol. TTOT9.3

Require monitoring and enforcement of fishing restrictions to protect Maui and Hector dolphins.

FREEDOM CAMPING

Te Take – Issue

Issue TTOT10: Freedom camping may generate adverse effects in the coastal environment.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT10.1

Camping occurs in designated areas which provide services for this activity.

Ngā Kaupapa – Policies

Pol. TTOT10.1

Work with district councils, the Department of Conservation and the wider community to identify areas where freedom camping is prohibited or restricted.

Pol. TTOT10.2

Support the use of incentives and information to encourage camping in designated areas.

Pol. TTOT10.3

Oppose all camping on or in close vicinity to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

ACCESS TO THE COAST

Te Take – Issue

Issue TTOT11: The loss of access to wāhi tapu/wāhi taonga, urupā, sites of significance to Māori and mahinga kai areas located in the coastal environment.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT11.1

Customary access to the coastal environment is recognised and provided for.

Ngā Kaupapa – Policies

Pol. TTOT11.1

Require the recognition and provision for customary access to mahinga kai sites and resources, or other sites of cultural significance.

Pol. TTOT11.2

Require that access restrictions be designed to protect the coastal environment where required.



Pol. TTOT11.3

Ensure coastal land use and development does not restrict Te Atiawa's access to mahinga kai sites and resources, or other sites of cultural significance.

COASTAL AND MARINE WĀHI TAPU/WĀHI TAONGA, URUPĀ AND SITES OF SIGNIFICANCE TO MĀORI

Te Take – Issue

Issue TTOT12: The lack of protection for Te Atiawa coastal and marine wāhi tapu/wāhi taonga, urupā and sites of significance to Māori will generate adverse effects on Te Atiawa's values.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTOT12.1

Ensure that all taonga within our Te Atiawa rohe are protected from inappropriate use, development and destruction.

Ngā Kaupapa – Policies

Pol. TTOT12.1

Require that when koiwi (human bones) are exposed in the coastal environment, Ngā Hapū o Te Atiawa determine the place of reinternment.

Pol. TTOT12.2

Require that regional and district councils establish and maintain a process to identify wāhi tapu/wāhi taonga, urupā and sites of significance to Māori in partnership with Ngā Hapū o Te Atiawa and this is resourced.

Pol. TTOT12.3

Require that regional and district councils provide for Ngā Hapū o Te Atiawa in the decision-making process, and where a proposal is unacceptable to Ngā Hapū o Te Atiawa the application shall not proceed.

Pol. TTOT12.4

Require that regional and district councils include provision in plans for all known wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. This includes but is not limited to:

- a) Restrict development within 50 metres of any wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;

- b) consultative site visit;
- c) archaeological assessment, by a person nominated by tangata whenua;
- d) ensuring applicants commission a Cultural Impact Assessment for any activity within 500 metres of a wāhi tapu/wāhi taonga, urupā and sites of significance to Māori identified in council planning documents;
- e) applicants to apply for an archaeological authority from Heritage New Zealand Pouhere Taonga for any activity which may disturb a site; and
- f) applicants to commission the use of a cultural monitor for land disturbance works.

Pol. TTOT12.5

Require that regional and district councils include provision in plans for all areas of land with a High Risk of discovering wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. This includes but is not limited to:

- a) Consultative site visit and hui;
- b) Archaeological assessment, by a person nominated by Ngā Hapū o Te Atiawa;
- c) applicants to apply for an Archaeological Authority from Heritage New Zealand Pouhere Taonga for any activity which may disturb a site; and
- d) applicants to commission the use of a cultural monitor for land disturbance works.

Pol. TTOT12.6

Require that regional and district councils include provision in plans for areas with a Low Risk of discovering wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. This includes but is not limited to:

- a) applicants engaging with Ngā Hapū o Te Atiawa and adhering to an On-Call Procedure approved by Ngā Hapū o Te Atiawa specific to the proposed location.

Pol. TTOT12.7

Require that where an activity may disturb a site an application for an Archaeological Authority must be applied for and Te Kotahitanga and Ngā Hapū o Te Atiawa are engaged.

Pol. TTOT12.8

Require that Ngā Hapū o Te Atiawa have the right to identify wāhi tapu/wāhi taonga, urupā and sites

of significance to Māori that must be protected from development, and therefore ensure that an Archaeological Authority is not granted.

Pol. TTOT12.9

Require that where an Archaeological Authority is granted, Ngā Hapū o Te Atiawa are involved in establishing conditions on the Archaeological Authority. This may include but is not limited to:

- a) Use of cultural monitors for land disturbance;
- b) Induction for contractors undertaking earthworks; and
- c) On-Call Procedure in accordance with tikanga.

Pol. TTOT12.10

Require that regional and district councils protect wāhi tapu/wāhi taonga, urupā and sites of significance to Māori from inappropriate land use and development by:

- a) Recognising the relationship of Ngā Hapū o Te Atiawa have with wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- b) Establish a process for engagement with Ngā Hapū o Te Atiawa specific to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- c) Recognition of planning tools such as cultural landscapes and silent files; and
- d) Recognition that values of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori are spiritual and may extend beyond its physical form.

Pol. TTOT12.11

Ngā Hapū o Te Atiawa have the right to identify any site as wāhi tapu/wāhi taonga, urupā and sites of significance and require that Heritage New Zealand Pouhere Taonga will support this process.

Pol. TTOT12.12

Require that regional and district councils use methods to maintain, protect and restore wāhi tapu/wāhi taonga, urupā and sites of significance. This includes but is not limited to:

- a) maintain a register of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori and work in partnership with Ngā Hapū o Te Atiawa to ensure their protection;
- b) protect from inappropriate land use by covenants (e.g open space);
- c) designation as a Historic Reserve or local purpose reserve under the Reserves Act 1977; and
- d) registration of a consent notice under Section 221 of the Resource Management Act 1991 on the computer freehold registers at time of subdivision.

6.5 TE TAI AWHI-RANGI - AIR AND ATMOSPHERE

Awhi-Rangi is another name for Ranginui or sky father. The air and atmosphere are viewed as a gift from Awhi-Rangi. It is acknowledged as a taonga and therefore its mauri must be protected from inappropriate use, and to ensure it is passed onto future generations in a healthy and pristine state.

Air and atmosphere quality in Taranaki is good due to the exposed and windy nature of our region, low population density and a relatively small number of industrial emissions. However, this may not always be the case and therefore we provide the policy statements below.

This section addresses matters in our Te Atiawa rohe relating to Awhi-Rangi and covers issues such as air and atmosphere quality, climate change, light, noise, odour and visual pollution. This section should be read in conjunction with Section 6.1.

WHAKARĀPOTO NGĀ TAKE - SUMMARY OF ISSUES

The Te Tai Awhi-Rangi issues within the rohe of Te Atiawa are summarised below:

TE TAI AWHI-RANGI	
Ngā Take - Issues	
Issue Te Tai Awhi-Rangi(TTAR)1: Air and atmosphere quality	The discharge of contaminants into the air and atmosphere can generate adverse effects on our mahinga kai areas and species, wāhi tapu/wahi taonga, sites of significance to Māori, and on our health and wellbeing.
Issue TTAR2: Climate change	Climate change can generate adverse effects on our ancestral lands, waters, taonga species, wāhi tapu/wahi taonga, sites of significance to Māori, and our health and wellbeing.
Issue TTAR3: Light, noise, odour and visual pollution	The effects of light, noise, odour and visual pollution can generate adverse effects on our taonga species and our health and wellbeing.

NGĀ PAETAE - GENERAL OBJECTIVES

Gen. Ob. Te Tai Awhi-Rangi(TTAR)1.1

The mauri of air and atmosphere is enhanced and protected within our Te Atiawa rohe to provide for current and future generations.

NGĀ KAUPAPA - GENERAL POLICIES

Gen. Pol. Te Tai Awhi-Rangi(TTAR)1.1

Require that central government agencies and regional and district councils provide for the relationship of Te Atiawa with air and atmosphere in management and decision-making.

Gen. Pol. TTAR1.2

Require that central government agencies and regional and district councils recognise that only Te Atiawa can identify the impact of activities on our relationship with air and atmosphere.

Gen. Pol. TTAR1.3

Require that central government agencies and regional and district councils engage with Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any application made under the Resource Management Act 1991 which may affect air and atmosphere quality.

Gen. Pol. TTAR1.4

Support Te Atiawa in the development and use of mātauranga Māori monitoring techniques.

AIR QUALITY

Te Take – Issue

Issue TTAR1: The discharge of contaminants into the air and atmosphere can generate adverse effects on our mahinga kai areas and species, wāhi tapu/wahi taonga, sites of significance to Māori, and on our health and wellbeing.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAR1.1

Ensure that air and atmosphere quality is of a high standard for current and future generations.

Ngā Kaupapa – Policies

Pol. TTAR1.1

Require that central government agencies and regional and district councils recognise and provide for the potential incremental and cumulative adverse effects within catchments of air and atmosphere discharges when developing planning documents, and assessing resource consents.

Pol. TTAR1.2

Require the adoption of clean technologies which reduce adverse effects resulting from the discharge of contaminants on air and atmosphere quality.

Pol. TTAR1.3

Require that central government agencies and regional and district councils meaningfully undertake action if conditions on air and atmosphere discharge consents are breached.

Pol. TTAR1.4

Require the use of site-specific native plantings programmes to off-set the effects resulting from air and atmosphere discharges.

Pol. TTAR1.5

Require that as far as practicable applicants manage discharges to air and atmosphere on-site.

CLIMATE CHANGE

Te Take – Issue

Issue TTAR2: Climate change can generate adverse effects on our ancestral lands, waters, taonga species, wāhi tapu/wahi taonga, sites of significance to Māori, and our health and wellbeing.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAR2.1

Promote initiatives to reduce greenhouse gas emissions within our Te Atiawa rohe.

Ngā Kaupapa – Policies

Pol. TTAR2.1

Require research into understanding the effects of climate change on our environment, in particular our mahinga kai species, and require reports of this nature be distributed to Te Atiawa.

Pol. TTAR2.2

Support central government agencies and regional and district councils in the preparation of planning documents and initiatives to reduce greenhouse gas emissions.

Pol. TTAR2.3

Support the initiatives of primary industries to reduce greenhouse gas emissions.

Pol. TTAR2.4

Require the adoption of clean technologies which reduce adverse effects of discharge activities on air and atmosphere quality.

Pol. TTAR2.5

Require the use of site-specific native plantings programmes to off-set the effects resulting from air discharges.

LIGHT, NOISE, ODOUR AND VISUAL POLLUTION

Te Take – Issue

Issue TTAR3: The effects of light, noise, odour and visual pollution can generate adverse effects on our taonga species, and our health and wellbeing.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTAR3.1

Ensure the effects of light, noise, odour, radiation and visual pollution are managed in a manner that does not impact on Te Atiawa, the environment, species, on our health and wellbeing, or cause a nuisance to our people.

Ngā Kaupapa – Policies

Pol. TTAR3.1

Require the adoption of clean technologies to reduce light, noise, odour, radiation and visual pollution.

Pol. TTAR3.2

Require monitoring of light, noise, odour and radiation from industries to ensure compliance with existing standards and conditions of consents, so the adverse effect on those living nearby are reduced.

Pol. TTAR3.3

Require colours and building design to fit with that of the surrounding environment.

Pol. TTAR3.4

Require consent conditions that require planting of site-specific native trees which provide bird corridors as well as screen obtrusive developments.

Pol. TTAR3.5

Require that regional council meaningfully undertake enforcement action if conditions of consents are breached.

6.6 TE TAI O TĀNE TOKORANGI - FLORA AND FAUNA

Tokorangi is the act of propping up the sky. Tāne Mahuta, the son of Ranginui and Papatūānuku, broke the embrace of his parents by lifting the sky and giving rise to many children each becoming the ātua of respective domains of the environment. Tāne became the ātua of the forests and birds.

Prior to European settlement, Taranaki was covered in dense native forest, shrubland and small wetland areas which held an abundance of native fauna. However, due to Taranaki's low-lying terrain much of the land was cleared for settlement. Today, remnants of native forest remain scattered around the region, with the largest concentration confined to Taranaki Maunga. The protection and enhancement of native biodiversity and mahinga kai underpins many matters which we as kaitiaki seek to address.

This section addresses matters in our Te Atiawa rohe relating to Tokorangi and covers issues such mahinga kai, native biodiversity, restoration of native species, and weed and pest management. This section should be read in conjunction with Section 6.1.

WHAKARĀPOTO NGĀ TAKE - SUMMARY OF ISSUES

The Te Tai o Tāne Tokorangi issues within the rohe of Te Atiawa are summarised below:

TE TAI O TĀNE TOKORANGI	
Ngā Take - Issues	
Issue Te Tai o Tāne Tokorangi (TTTT)1: Mahinga kai	The loss of mahinga kai areas and species as a result of habitat loss, discharges, abstractions, diversion of waterways, barriers to fish passage and introduction of exotic species is impacting on Te Atiawa values, and our health and wellbeing.
Issue TTTT2: Native biodiversity	The loss of native biodiversity and taonga species is affecting Te Atiawa values and the health of our land, water and people.
Issue TTTT3: Restoration of native biodiversity	Due to the loss of native biodiversity there is a need for species restoration initiatives.
Issue TTTT4: Weed and pest management	The introduction of weeds and pest can generate adverse effects on the survival of our native biodiversity.
Issue TTTT5: Pest management with toxins	There are concerns about the use of toxins as a method of pest control, and the impacts it can generate on our ancestral lands, waters and species.

NGĀ PAETAĒ - GENERAL OBJECTIVES

Gen. Ob. Te Tai o Tāne Tokorangi (TTTT)1.1

Protect and enhance indigenous biodiversity and taonga species within our Te Atiawa rohe.

Gen. Ob. TTTT1.2

Acknowledge and provide opportunities for practical exercise of kaitiakitanga by Te Atiawa.

for the relationship of Te Atiawa with indigenous biodiversity and taonga species with particular regard to customary use in management and decision making.

Gen. Pol. TTTT1.2

Require that central government agencies and regional and district councils recognise that only Te Atiawa can identify the impact of activities on our relationship with indigenous biodiversity and taonga species within our Te Atiawa rohe.

NGĀ KAUPAPA - GENERAL POLICIES

Gen. Pol. Tāne Mahuta (TTTT)1.1

Require that central government agencies and regional and district councils recognise and provide

Gen. Pol. TTTT1.3

Require that central government agencies and regional and district councils engage with Te Kotahitanga and Ngā Hapū o Te Atiawa as affected

parties on any application made under the Resource Management Act 1991 and Conservation Act 1987 which affect indigenous biodiversity and taonga species.

Gen. Pol. TTTT1.4

Require that central government agencies and regional and district councils take into consideration the incremental and cumulative effects of activities such as discharges, abstractions, diversion of waterways, barriers to fish passage and introducing exotic species on mahinga kai when developing planning documents, and assessing resource consents.

Gen. Pol. TTTT1.5

Support Te Atiawa in the development and use of mātauranga Māori monitoring techniques of indigenous biodiversity and taonga species within our Te Atiawa rohe.

MAHINGA KAI

Te Take – Issue

Issue TTTT1: The loss of mahinga kai areas and species as a result of habitat loss, discharges, abstractions, diversion of waterways, barriers to fish passage and introduction of exotic species is impacting on Te Atiawa values, and our health and wellbeing.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTTT1.1

Improving the health of our waters, freshwater, coastal and marine, will support mahinga kai, and the health and wellbeing of our people.

Ngā Kaupapa – Policies

Pol. TTTT1.1

Require restoration of mahinga kai areas and species, and preserve the tikanga associated with these resources, by:

- a) integrating mahinga kai objectives into planning documents ;
- b) developing and implementing restoration projects;
- c) conducting wānanga to teach our future kaitiaki about our mahinga kai traditions; and

d) identify and support options for restoring populations of mahinga kai species.

Pol. TTTT1.2

Require that central government agencies and regional and district councils plans include provisions to protect, enhance and extend existing mahinga kai habitats such as reef structures, estuaries, remnant wetlands, waipuna, riparian margins and native forest.

Pol. TTTT1.3

Encourage that landowners protect remnant areas of indigenous biodiversity to connect species and habitats.

NATIVE BIODIVERSITY

Te Take – Issue

Issue TTTT2: The loss of native biodiversity and taonga species is affecting Te Atiawa values and the health of our land, water and people.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTTT2.1

Support General Objectives which provide for Te Tai o Tāne Tokorangi, Te Tai Awhi-Nuku, Te Tai o Maru and Te Tai o Tangaroa.

Ngā Kaupapa – Policies

Pol. TTTT2.1

Require acknowledgement of Te Tiriti o Waitangi as the basis for the relationship between the regional and district councils all other relevant authorities and Te Atiawa with regard to managing native biodiversity.

Pol. TTTT2.2

Require the Department of Conservation, regional and district councils and all other relevant authorities, work with Te Atiawa to protect, enhance and restore native biodiversity.

Pol. TTTT2.3

Require that the intellectual property rights of indigenous biodiversity remains in the possession of Te Atiawa.

Pol. TTTT2.4

Require the Department of Conservation, regional and district councils and other relevant authorities recognise and provide for Te Atiawa cultural values when identifying areas with significant indigenous biodiversity value.

Pol. TTTT2.5

Promote the principle of Ki Uta Ki Tai (from mountain to sea) as a culturally appropriate approach to establishing corridors of native biodiversity in the region.

RESTORATION OF NATIVE BIODIVERSITY**Te Take** - Issue

Issue TTTT3: Due to the loss of native biodiversity there is a need for species restoration initiatives.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives**Ob. TTTT3.1**

Protect and enhance natural landscapes and native species and therefore enhance the mauri of the land and these species.

Ngā Kaupapa - Policies**Pol. TTTT3.1**

Require the Department of Conservation and the regional council to take into account Te Atiawa mahinga kai objectives when planning restoration projects.

Pol. TTTT3.2

Require that when planning restoration projects the flora and fauna is appropriate to that area.

Practise note: It is anticipated that the implementation of this policy will require techniques such as ecosourcing.

Pol. TTTT3.3

Require recognition of Te Atiawa's cultural, spiritual and traditional association with native species when planning restoration projects.

Pol. TTTT3.4

Require engagement with Te Atiawa when planning native bird restorations projects to translocate and release species in our Te Atiawa rohe or transfer species from our Te Atiawa rohe to other rohe.

WEED AND PEST MANAGEMENT**Te Take** - Issue

Issue TTTT4: The introduction of weeds and pest can generate adverse effects on the survival of our native biodiversity.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives**Ob. TTTT4.1**

Eradicate introduced weeds and pests that are causing adverse effects to protect and enhance our native biodiversity whilst avoiding adverse effects on the environment and species.

Ngā Kaupapa - Policies**Pol. TTTT4.1**

Require the protection, maintenance and restoration of indigenous species as a key focus of weed and pest management.

Pol. TTTT4.2

Require the use of natural solutions including trapping possums; establishment of riparian margins for shading aquatic weed) over the use of hazardous substances, where feasible.

Pol. TTTT4.3

Require timing and techniques that avoid or reduce the impact of pest control operations on indigenous biodiversity and other cultural values.

Pol. TTTT4.4

Require that central government agencies and regional and district councils weed management programmes avoid effects on indigenous biodiversity, and wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. This may include but is not limited to:

- a) avoiding areas identified by Te Atiawa and utilising alternative methods in these areas; and
- b) timing operations in accordance with Te Atiawa



advice.

PEST CONTROL WITH TOXINS

Te Take - Issue

Issue TTTT5: There are concerns about the use of toxins as a method of pest control, and the impacts it can generate on our ancestral lands, waters and species.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTTT5.1

Support General Objectives which provide for Te Tai o Tāne Tokorangi, Te Tai Awhi-Nuku, Te Tai o Maru and Te Tai o Tangaroa.

Ngā Kaupapa - Policies

Pol. TTTT5.1

Te Atiawa may support the use of toxins if the following can be determined:

- a) the timing and design of operations reflect local conditions;
- b) toxins will be used in conjunction with other methods such as shooting or trapping, to maximise success;
- c) non target impacts are identified, including those identified by Te Atiawa;
- d) Te Atiawa are engaged early and are involved in setting priorities and designing operations, including monitoring; and
- e) there is an actual environmental or cultural benefit for the use of toxins.

Pol. TTTT5.2

Support an investigation into the effects of and alternatives to using toxins.

Pol. TTTT5.3

Avoid the use of toxins in areas which could be managed by shooting or trapping pests.

Pol. TTTT5.4

Encourage the use of incentives for people to trap or shoot pests in accessible areas.

6.7 TE TAI HEKENUI - WĀHI TAPU / WĀHI TAONGA, URUPĀ AND SITES OF SIGNIFICANCE TO MĀORI

Prior to European settlement, the whenua of Te Atiawa was occupied and utilised to sustain our people. It was a cultural landscape that contained a wealth of occupation such as marae, kāinga nohoanga, umu, wāhi mahi kohātu, wāhi ingoa, ara tawhito, māra, Tauranga waka, Tauranga ika, mahinga kai, wāhi pakanga, pā and urupā. Today however, many sites have been destroyed by development and those that remain are in varying conditions of degradation.

The Resource Management Act 1991 requires that local authorities, in relation to managing the use, development and protection of natural and physical resources, are to recognise and provide for the following matters of national importance:

- The protection of historic heritage from inappropriate subdivision, use and development.
- The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development. The courts have used this as a mechanism to consider cultural landscapes of historical importance.
- The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.

Historic heritage, as reference above as a matter of national importance, is defined in the Resource Management Act 1991 as:

(a) means those natural and physical resources that contribute to an understanding and appreciation of New Zealand history and cultures, deriving from any of the following qualities:

- i. archaeological
- ii. architectural
- iii. cultural
- iv. historic
- v. scientific
- vi. technological

(b) includes -

- i. historic sites, structures, places and areas; and
- ii. archaeological sites; and
- iii. sites of significance to Māori to Māori, including wāhi tapu; and
- iv. surroundings associated with the natural and physical resources

This section addresses matters in the Ngā Hapū o Te Atiawa rohe relating to Te Tai Hekenui and covers issues such as recognising cultural landscapes, wāhi tapu/wāhi taonga, urupā, sites of significance to Māori and access. This section should be read in conjunction with Section 6.1

WHAKARĀPOTO NGĀ TAKE - SUMMARY OF ISSUES

The Te Tai Hekenui issues within the rohe of Te Atiawa are summarised below:

TE TAI HEKENUI	
Ngā Take - Issues	
Issue Te Tai Hekenui (TTHE)1: Acknowledgement and Protection of Cultural Landscapes	The lack of acknowledgement and protection of cultural landscapes can generate adverse effects on Te Atiawa's values, and our health and wellbeing.
Issue TTHE2: Acknowledgement and Protection of Wāhi Tapu/ Wahi Taonga, Urupā and Sites of significance to Māori	The lack of acknowledgment and protection of wāhi tapu/wahi taonga, urupā and sites of significance to Māori.
Issue TTHE3: Access to Wāhi Tapu/Wahi Taonga, Urupā and Sites of significance to Māori	Limited access to wāhi tapu/wahi taonga, urupā and sites of significance to Māori can affect Te Atiawa's values, and our health and wellbeing.

NGĀ PAETAE - GENERAL OBJECTIVES

Gen. Ob. Te Tai Hekenui TTHE1.1

Ngā Hapū o Te Atiawa's relationship with wāhi tapu/ wāhi taonga, urupā and sites of significance, is recognised and protected.

Gen. Ob. TTHE1.2

The mauri of wāhi tapu/wāhi taonga, urupā and sites of significance is protected within the Te Atiawa rohe for current and future generations.

Gen. Pol. TTHE1.3

Require that central government agencies, regional and district councils and any other consenting authority engage Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any applications made under the Resource Management Act 1991 and the Heritage New Zealand Pouhere Taonga Act 2014 which affect wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe. Where any activity is unacceptable to Ngā Hapū o Te Atiawa it should not proceed.

NGĀ KAUPAPA - GENERAL POLICIES

Gen. Pol. Te Tai Hekenui TTHE1.1

Require that central government agencies, regional and district councils acknowledge and provide for the relationship of Ngā Hapū o Te Atiawa with our wāhi tapu/wāhi taonga, urupā and sites of significance in management and decision-making.

Gen. Pol. TTHE1.2

Require that central government agencies, regional and district councils and any other consenting authority recognise that only Ngā Hapū o Te Atiawa can identify the impact of activities on our relationship with wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe.

ACKNOWLEDGEMENT AND PROTECTION OF CULTURAL LANDSCAPES

Te Take - Issue

Issue TTHE1: The lack of acknowledgement and protection of cultural landscapes can generate adverse effects on Te Atiawa's values, and our health and wellbeing.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae - Objectives

Ob. TTHE1.1

Acknowledge and protect geographical areas with a concentration of interconnected wahi tapu/wahi taonga, urupā and sites of significance to Māori.

Ngā Kaupapa – Policies

Pol. TTHE1.1

Require that central government agencies, regional and district councils and any other consenting authority acknowledge, provide for and resource Ngā Hapū o Te Atiawa to identify areas with a concentration of wahi tapu/wahi taonga, urupā and sites of significance to Māori and values as significant cultural landscapes, not just individual site extents.

Pol. TTHE1.2

Require that central government agencies, regional and district councils and any other consenting authority provide for cultural landscapes in our Te Atiawa rohe in policies, plans and decision-making processes.

Pol. TTHE1.3

Require that cultural values associated with Outstanding Natural Landscapes, Outstanding Natural Features and Regionally Significant Landscapes are recognised and provided for.

Pol. TTHE1.4

Require that central government agencies, regional council district councils maintain, protect and restore cultural landscapes through the following methods:

- a) Maintain a register with wahi tapu/wahi taonga, urupā, sites of significance to Māori and cultural landscapes with Heritage New Zealand Pouhere Taonga; and
- b) Protect wahi tapu/wahi taonga, urupā, sites of significance to Māori and cultural landscapes from inappropriate land use by covenants (e.g open space), designation as a Historic Reserve or local purpose reserve, or a consent notice under Section 221 of the Resource Management Act 1991 on the computer freehold registers.

Pol. TTHE1.5

Require that central government agencies, regional and district councils and any other consenting authority work alongside Ngā Hapū o Te Atiawa to increase awareness of the use of cultural landscapes.

ACKNOWLEDGEMENT AND PROTECTION OF WĀHI TAPU/WĀHI TAONGA, URUPĀ AND SITES OF SIGNIFICANCE TO MĀORI

Te Take - Issue

Issue TTHE2: The lack of acknowledgment and protection of wahi tapu/wahi taonga, urupā and sites of significance to Māori.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTHE2.1

Ensure that wahi tapu/wahi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe are protected from damage, modification, desecration, destruction and loss of access.

Ngā Kaupapa – Policies

Pol. TTHE2.1

Require that regional and district councils establish and maintain a process to identify wahi tapu/wahi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe in partnership with Ngā Hapū o Te Atiawa and this is resourced.

Pol. TTHE2.2

Require that regional and district councils include provisions in their plans that address access protocols and measures for the protection of Ngā Hapū o Te Atiawa information.

Practise note: This may include but is not limited to Memorandum of Understandings, silent files and schedules.

Pol. TTHE2.3

Require that central government agencies, regional and district councils and any other consenting authority provide for Ngā Hapū o Te Atiawa in the decision-making process, and ensure that the advice from kaumatua and holders of knowledge from Ngā Hapū o Te Atiawa regarding the location, significance and management of wahi tapu/wahi taonga, urupā and sites of significance to Māori supercedes other sources of information through the decision-making process.

Pol. TTHE2.4

Require conditions of consent for all known wahi tapu/wahi taonga, urupā and sites of significance to Māori. This includes but is not limited to:



- a) restrict development within 50 metres of any wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- b) consultative site visit and hui;
- c) archaeological assessment, by a person nominated by Ngā Hapū o Te Atiawa;
- d) applicants to commission a Cultural Impact Assessment for any activity within 500 metres of a wāhi tapu/wāhi taonga, urupā and sites of significance to Māori identified in council plans;
- e) applicants to apply for an Archaeological Authority from Heritage New Zealand Pouhere Taonga for any activity which may disturb a site; and
- f) applicants to commission the use of a cultural monitor for land disturbance works.

Pol. TTHE2.5

Require conditions of consent for all areas of land with a High Risk of discovering wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. This includes but is not limited to:

- a) Consultative site visit and hui;
- b) Archaeological assessment, by a person nominated by Ngā Hapū o Te Atiawa;
- c) applicants to apply for an Archaeological Authority from Heritage New Zealand Pouhere Taonga for any activity which may disturb a site; and
- d) applicants to commission the use of a cultural monitor for land disturbance works.

Pol. TTHE2.6

Require conditions of consent for areas with a Low Risk of discovering wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. This includes but is not limited to:

- a) applicants to engage with Ngā Hapū o Te Atiawa and adhere to an On-Call Procedure approved by Ngā Hapū o Te Atiawa specific to the proposed location.

Pol. TTHE2.7

Require that where an activity may disturb a site an application for an Archaeological Authority to damage, modify, desecrate or destroy a wāhi tapu/wāhi taonga, urupā and sites of significance to Māori must be applied for and Ngā Hapū o Te Atiawa Pol. TTHE2.8 engaged.

Pol. TTHE2.8

Require that Ngā Hapū o Te Atiawa has the right to identify wāhi tapu/wāhi taonga, urupā and sites of significance to Māori within our Te Atiawa rohe that must be protected from development, and therefore ensure that an Archaeological Authority is not granted.

Pol. TTHE2.9

Require that where an Archaeological Authority is granted, Ngā Hapū o Te Atiawa are involved in establishing conditions on the Archaeological Authority. This may include but is not limited to:

- a) Use of cultural monitors for soil disturbance;
- b) Induction for contractors undertaking earthworks; and
- c) An On-Call Procedure approved by Ngā Hapū o Te Atiawa.

Pol. TTHE2.10

Require that central government agencies, regional and district councils and any other consenting authority protect wāhi tapu/wāhi taonga, urupā and sites of significance to Māori from inappropriate land use and development by:

- a) Recognising the relationship of Ngā Hapū o Te Atiawa with wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- b) Establish a process for engagement with Ngā Hapū o Te Atiawa specific to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori ;
- c) Recognition of planning tools such as cultural landscapes and silent files; and
- d) Recognition that values of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori are spiritual and may extend beyond its physical form.

Pol. TTHE2.11

Ngā Hapū o Te Atiawa have the right to identify any site as wāhi tapu/wāhi taonga, urupā and sites of significance to Māori and require that Heritage New Zealand Pouhere Taonga will support this process.

Pol. TTHE2.12

Require that central government agencies, regional and district councils and any other consenting authority to use methods to maintain, protect and restore wāhi tapu/wāhi taonga, urupā and sites of significance to Māori.

This includes but is not limited to:

- a) maintain a register of wāhi tapu/wāhi taonga, urupā and sites of significance with regional and district councils, and to work in partnership to ensure their protection;
- b) protect from inappropriate land use by covenants (e.g open space);
- c) designation as a Historic Reserve or local purpose reserve under the Reserves Act 1977; and
- d) a consent notice under Section 221 of the Resource Management Act 1991 applied on the property computer freehold register or recorded in the LIM (Land Information Memorandum) report.

ACCESS TO WĀHI TAPU/WAHI TAONGA, URUPĀ AND SITES OF SIGNIFICANCE TO MĀORI

Te Take – Issue

Issue TTHE3: Limited access to wāhi tapu/wahi taonga, urupā and sites of significance to Māori can affect Te Atiawa’s values, and our health and wellbeing.

The objectives and policies to address this issue within the rohe of Te Atiawa are:

Ngā Paetae – Objectives

Ob. TTHE3.1

Support General Objectives which provide for Te Tai Hekenui.

Ob. TTHE3.2

Require access to be provided to Te Atiawa wāhi tapu/wahi taonga, urupā and sites of significance to Māori at the time of development.

Ngā Kaupapa – Policies

Pol. TTHE3.1

Require unrestricted access to wāhi tapu/wāhi taonga, urupā and sites of significance to Māori. Methods for maintaining and increasing accessibility include but are not limited to:

- a) opposing developments that will close access;
- b) engaging with landowners to develop access arrangements and management plans to protect sites;
- c) consenting authorities to maintain a register of wāhi tapu/wāhi taonga, urupā and sites of significance to Māori;
- d) protect from inappropriate land use by covenants;
- e) designation as a Historic Reserve or local purpose reserve under the Reserves Act 1977; and
- f) a consent notice under Section 221 of the Resource Management Act 1991 on the property computer freehold register.

Pol. TTHE3.2

Require that district councils identify paper roads and ensure Ngā Hapū o Te Atiawa use rights are provided for through development processes.

6.8 TE TAI O RUA TARANAKI - TARANAKI MAUNGA

Te Tai o Rua Taranaki is the life force of Taranaki Maunga and its surrounding landscape. Taranaki Maunga is a much-revered peak at the centre of our Te Atiawa rohe. It is adorned with a korowai (cloak) of native vegetation which resides over its shoulders and spreads down its steep cone, over the ranges of Pouākai and Kaitake, and extending to the coast and out to sea over Ngā Motu. Its forests are thick with kahikatea, tawa, tōtara and rātā that give way to mountain cedar and red tussocks in the alpine zone. Its species are rare native birds such as the North Island brown kiwi, whio and occasionally pateke. However, the introduction of predators like wild goats, weasels, stoats, possums and rats has impacted immensely on Taranaki Maunga and its biodiversity.

Te Atiawa, as kaitiaki of Taranaki Maunga, aspire to enhance, protect and restore the maunga. Taranaki Maunga - He Kawa Ora - Back to Life, is an ambitious restoration project focused on transforming the mountain, ranges and islands of Taranaki, aligns with Te Atiawa's aspirations and *Tai Whenua, Tai Tangata, Tai Ao*.

This section addresses matters in our Te Atiawa rohe relating to Taranaki Maunga and covers issues relevant to the current tenure. However, this section will require revision at the completion of the Maunga settlement which is currently in progress.

This section should be read in conjunction with Section 6.1.

TE TAI O RUA TARANAKI	
Ngā Take - Issue	
Issue Te Tai o Rua Taranaki (TTRT)1:	The lack of acknowledgement and provision for the relationship of Te Atiawa with Taranaki Maunga can affect Te Atiawa values, and the health and wellbeing of our people. The objectives and policies to address this issue with the Te Atiawa rohe are detailed below.

NGĀ PAETAE - GENERAL OBJECTIVES

Ob. Te Tai o Rua Taranaki (TTRT)1.1

Work with the Department of Conservation, any other relevant authority, and our whanaunga iwi of Taranaki to protect the cultural and spiritual relationship between Te Atiawa and Taranaki Maunga.

NGĀ KAUPAPA - GENERAL POLICIES

Pol. TTRT1.1

Require that central government agencies, regional and district councils and any other consenting authority acknowledge and provide for the relationship of Te Atiawa with Taranaki Maunga in management and decision-making.

Pol. TTRT1.2

Require that central government agencies, regional and district councils and any other consenting authority recognise that only tangata whenua can identify the impact of activities on our relationship with Taranaki Maunga.

Pol. TTRT1.3

Require that central government agencies, regional and district councils and any other consenting authority engage Te Kotahitanga and Ngā Hapū o Te Atiawa as affected parties on any applications made under all relevant Acts which affect Taranaki Maunga.

Pol. TTRT1.4

Require that the Egmont National Park is renamed and all planning documents are updated to reflect this name change.

Pol. TTRT1.5

Require strong and effective working relationships with the Department of Conservation and our whanaunga iwi of Taranaki to manage the use and development of natural and physical resources and allow for customary activities.

Pol. TTRT1.6

Support the Department of Conservation in protecting and managing natural and cultural resources of Taranaki Maunga, and identify opportunities for Te Atiawa to partner with the Department of Conservation in their work.

Pol. TTRT1.7

Require the transfer of kaitiaki powers and/or duties from the Department of Conservation to iwi of Taranaki so we can play a key role in protecting and managing our ancestral tūpuna.

Pol. TTRT1.8

Support Te Atiawa in the development and use of mātauranga Māori monitoring techniques.

Pol. TTRT1.9

Require protection of the view shaft from marae, pā, urupā and other sites of significance to Māori to Taranaki Maunga.

Pol. TTRT1.10

Restrict increases to the footprints of existing buildings and structures, and erection of new buildings or structures on Taranaki Maunga.

Pol. TTRT1.11

Avoid people standing on the peak or head of Taranaki Maunga.

Pol. TTRT1.12

Require that Te Atiawa are engaged and cultural narrative relating to Te Atiawa's connection to Taranaki Maunga is certified by Te Atiawa prior to its use in interpretive signage, public advertising or for commercial purposes.



Pol. TTRT1.13

Require and support the implementation of outcomes from the Taranaki Maunga settlement process.





7. KUPU ĀPITI - SCHEDULE

SCHEDULE 1 - TE ATIWA STATUTORY ACKNOWLEDGEMENTS, STATEMENTS OF ASSOCIATION AND DEED OF SETTLEMENT MAP REFERENCES

Te Atiawa Areas of Importance **TE ATIWA AREA OF INTEREST**

Statement of Association

The rohe of Te Atiawa extends from Te Rau o Te Huia along the coast to the Herekawe Stream, inland to Tahuna-a-Tūtawa, east to Whakangerengere, northeast to Taramoukou, north back to Te Rau o te Huia and offshore out to 200 nautical miles. Te Atiawa has occupied this rohe for well over a millennium. This area of interest encompasses the Coastal Marine Area, part of Taranaki Maunga and overlaps with rohe of five whanaunga iwi including Ngāti Mutunga (north-east), Ngāti Maru (east), Ngāti Ruanui (south), Ngāruahine (south) and Taranaki (west).

DEED PLANS - OVERLAY SITES

Te Atiawa Areas of Importance **PUKERANGIORA PĀ HISTORIC RESERVE**

Statement of Association

This site is situated on a bluff above the Waitara River and is the rohe of Pukerangiora Hapū. Pukerangiora Pā is an ancient Pā which housed a large population and incorporated several marae. Although it has a long pre-colonial history, its latter history and occupation has been defined by warfare. In 1821 a taua returning to their northern iwi visited Pukerangiora Pā, but were held as hostages for several months. This incident is known as 'Raihe Poaka' (the penned-up pigs). In 1831, the taua was returning home after a defeat at Ōtaka Pā at Ngā Motu. Many of the Hapū, fearful of being attacked by the taua fled to Pukerangiora Pā for refuge. The influx of large numbers led to overcrowding and panic and, although the Pā was barricaded, the harvesting of food from cultivation areas outside the Pā was neglected. The taua attacked and laid siege to Pukerangiora Pā. The overcrowding and the lack of provisions soon led to starvation and many inhabitants were trapped and killed. Many of the inhabitants escaped by jumping from the high bluff into the river and many others fled to neighbouring Pā. During the 1860s Land Wars, Pukerangiora Pā was attacked several times by the British Army. Pukerangiora Pā finally fell to the British because of the pounding of artillery fire from trenches/saps dug deep into the slopes of Pukerangiora Pā.

The physical footprint of Pukerangiora Pā, its cliff-top and commanding views of the Waitara River and its surrounds, remain as do the clearly defined British sap trenches. The spirituality of Pukerangiora Pā also remains through its captivating aura.

Te Atiawa Areas of Importance **PUKETARATA-PARIHAMORE HISTORIC RESERVE**

Statement of Association

The area includes three papakāinga, Pukewharangi, Puketarata and Parihamore in close proximity. These three pā formed a defensive network along the Te Henui river and are in the rohe of Ngāti Te Whiti.

Puketarata was named because of the tarata trees which cover a small hill. Puketarata was lightly defended with terracing and was probably where people stayed temporarily, rather than permanently. This is evident with the rua pits and the fact that the bush cover was never cleared and remains to this day. Another of the sought after resource was the titoki because of its berries from which oil was extracted for use on the body and hair.

Parihamore is located on a hill and was so named to reflect the sheer and bare (hamore) cliff (pare) facing the Te Henui. The renowned chiefs were Whakamoumouurangi and Kahu Tairoa. The river, the nearby swamps and the bush provided most of the resources needed for sustenance, such as fish, eels, lamprey, raupō, harakeke, timber, birds, karaka and hinau berries. The river, Te Henui, was also used as a highway to other pā and the Tauranga waka at the mouth of the Te Henui. As well as a kāinga, Parihamore was also a defensive pā. One of the well known histories includes a siege of Parihamore by Potaka Taniwha in pursuit of Urukinaki, the beautiful daughter of the rangatira Kahu Taiaroa. Potaka and his warriors camped in the hollow between Puketarata and Parihamore until the food supplies at Parihamore ran low. The Parihamore rangatira, Whakamoumou, then began negotiations with Potaka and Urukinaki was the price of peace. The former earthworks of Parihamore are still visible today.

Te Atiawa Areas of Importance **RIMUTAUTEKA SCENIC RESERVE**

Statement of Association

This site marks the boundary between Otaraua and Pukerangiora Hapū.

The social, cultural, historical and spiritual importance of Rimutauteka Scenic Reserve is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **WAITARA SCENIC RESERVE**

Statement of Association

The site adjoins the Waitara River and is in the rohe of Otaraua and Manukorihi Hapū.

The social, cultural, historical and spiritual importance of the Waitara Scenic Reserve is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

AWA TE TAKE PĀ HISTORIC RESERVE

Statement of Association

This site is in the rohe of Otaraua Hapū and is located on the banks of the Waitara River. Awa Te Take is an ancient site and was a papakāinga and defensive pa. As a defensive pā, the steep jagged riverside cliffs afforded perfect protection. Significant features such as earthwork defenses (ditch bank) and the remnants of prehistoric lowland forest remain visible today.

The social, cultural and historical importance of Awa Te Take Historic Reserve is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce tribal identity.

Te Atiawa Areas of Importance

AWA TE TAKE SCENIC RESERVE

Statement of Association

The social, cultural, historical and spiritual importance of Awa te Take Pā is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Awa te Take Awa te Take Scenic Reserve is on the banks of Waitara River and is in the rohe of Otaraua Hapū.

Te Atiawa Areas of Importance

BAYLY ROAD CONSERVATION AREA

Statement of Association

The site is located at the edge of Waitapu Urupū at Ngā Motu (islands) beach, New Plymouth and is in the rohe of Ngāti Te Whiti.

Waitapu is named after the stream which takes its name from an incident which arose during the siege of Ōtaka Pā by neighbouring northern iwi in 1832. When discussing terms for peace a chief from the neighbouring iwi, sought permission to go into Ōtaka to hold a tangi for his dead warriors. One inhabitant, Te Whau, ran out towards the taua, was killed and her body dismembered and thrown into the stream. The stream was then called Waitapu - wai (water) and tapu (sacred). This stream still runs through Waitapu Urupā today.

In 1923 Ngāti Te Whiti members petitioned the government for the return of the urupā this occurred in 1927 when the land was vested as an urupā through the Maori Land Court. Waitapu was the first cemetery in New Plymouth and the first recorded burial was Mary Ann Barrett in 1840. In 1847 the whaler Richard Barrett died after an accident and was also buried at Waitapu. During the excavations for the New Plymouth power station in 1970s kōiwi (bones) were uncovered at Paritūtu and were reinterred at Waitapu. The kōiwi were carbon dated to the 1600s.

Over the years many Māori and Pākeha have been laid to rest at Waitapu. Waitapu remains open as an urupā and is the final resting place for many Ngāti Te Whiti members. The value of the site today is its proximity to Waitapu Urupā and its current use as an access way in to the Waitapu Urupā.

Te Atiawa Areas of Importance **EVERETT PARK SCENIC RESERVE**

Statement of Association

Everett Park is located on the banks of the Maunganui River in the rohe of Pukerangiora Hapū

The social, cultural, historical and spiritual importance of Everett Park is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **HEREKAWA STREAM AND ITS TRIBUTARIES**

Statement of Association

The Herekawe is located to the south of New Plymouth and springs from the land and heads to the Tasman Sea. At its source it is very narrow but widens as it flows to the sea. The Herekawe is located with the rohe of the Ngāti Te Whiti Hapū.

The Herekawe was, and is, socially and culturally important because of the freshwater and coastal mahinga kai resources it provided to generations of the Hapū and the many papakainga nearby such as Onuku Taipari, Te Mahoe, Moturoa, Mikotahi, Ruataka, Papawhero.

Two events of more recent times provide evidence of the continuing importance of the Herekawe as a boundary marker. In 2004, the Herekawe is used as one of the boundary indicators between Te Atiawa and Taranaki for their respective 2004 Fisheries Settlements. In 2008 the Herekawe was decided as one of the boundary markers for the Tapuae Marine Reserve after Te Atiawa refused to give up its customary rights to collect kaimoana from the nearby reefs.

Te Atiawa acknowledges the Taranaki Iwi interest in the Herekawe.

Te Atiawa Areas of Importance **HUATOKI STREAM AND ITS TRIBUTARIES**

Statement of Association

The sites are in the rohe of Ngāti Te Whiti Hapū and take their name from the Huatoki River and their close proximity to it. The Huatoki is named after the titoki tree which grows profusely in the area.

The sites are in the rohe of Ngāti Te Whiti Hapū and take their name from the Huatoki Stream and their close proximity to it. The Huatoki is named after the titoki tree which grows profusely in the area.

The Huatoki River, and surrounding environment were important for their resources. Along and near its banks were solid stands of timber, flax and raupō. Aside from providing a source of water, the river was plentiful in fish, whitebait, and lamprey. The banks were used as a walkway to other papakāinga and as a highway to the coast. Several papakāinga were located along the river including Te Kawau, Pukaka, Mawhera, Maripu and Okoare. Nohoanga were also located in key resource gathering areas and were used by Hapū members in the summer months to gather resources and escape the heat. Disputes/competition for these resources caused several battles between Te Atiawa hapū. Two such battles are remembered today in kōrero tawhito. The first was a dispute over piharau fishing rights between Te Rangi Apiti Rua of Puke Ariki, and of Manu Kino of Waimanu. The other occurred when the rangatira, Koronerea, ambushed and attacked a taua who were hunting on the banks of the Huatoki. The battle was named Pakirikiri because the bodies resembled pakirikiri, the rock eyed cod.

During the Land Wars, British soldiers used a track along the Huatoki from Pukaka/Marsland Hill to the centre of town which was named Red Coat Lane. The river today is valued because of its rich bush stands, its conservation values and landscape aesthetics.

Te Atiawa Areas of Importance

HUATOKI STREAM MARGINAL STRIP

Statement of Association

The Huatoki runs through the centre of New Plymouth. The Huatoki springs from the land and heads to the Tasman Sea. At its source it is very narrow but widens as it flows to the sea. The Huatoki is within the rohe of the Ngāti Te Whiti Hapū.

The name Huatoki was coined because of the abundance of the titoki tree, which grew, and still grows, along its banks. A product from the titoki tree, oil, was valued for its cosmetic qualities.

The Huatoki was also important for its running freshwater source and mahinga kai, flax, raupō and timber. The food resources along with the kaimoana from nearby reefs provided ample sustenance for and sustained the papakāinga along the banks of the Huatoki, papakāinga such as Puke Ariki, Te Kawau, Pukaka, Mawhera, Maripu and Okoare. Most of the papakāinga existed peacefully with the others and shared nohonga (places to stay) along the banks of the Huatoki, especially in the summer months, to gather and store resources.

The abundance of resources, however, did not prevent the odd dispute. One such dispute remembered today in Kōrero tawhito was between Te Rangi Apiti Rua of Puke Ariki and of Manu Kino of Waimanu over the latter's piharau fishing rights. This resulted in Te Rangi Apiti Rua's attacking Waimanu in revenge and the people of Waimanu being rescued by Potaka of Nga Puke Turua.

Another battle occurred when Koronerea, ambushed and defeated a taua from a neighbouring iwi who were advancing up the Huatoki. This battle was named pakirikiri because the bodies of the slain resembled pakirikiri, the rock eyed cod.

The banks were a walkway to other papakāinga whilst the river was used as a highway to the coast and inland. Several known tauranga waka sites remain today.

During the Land Wars, British soldiers used a track along the Huatoki from Pukaka/Marsland Hill to the centre of town which was named Red Coat Lane.

The Huatoki retains its historic, cultural and traditional value to Te Atiawa who continue to exercise kaitiakitanga over the river and its conservation and aesthetic values.

Te Atiawa Areas of Importance

HUIRANGI RECREATION RESERVE

Statement of Association

The Huirangi Recreation Reserve is located on inland and is in the rohe of Pukerangiora Hapū.

The social, cultural, historical and spiritual importance of the Huirangi Recreation Reserve is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

KATERE SCENIC RESERVE

Statement of Association

Katere is located in Fitzroy, New Plymouth and is in the rohe of Ngāti Tawhirikura Hapū.

The social, cultural, historical and spiritual importance of Katere is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **KOWHANGAMOKU STREAM AND ITS TRIBUTARIES**

Statement of Association

The Kowhangamoku is located north of Waitara and springs from the land and flows to the Tasman Sea. It is located in the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of the Kowhangamoku is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **MAHOETAHI HISTORIC RESERVE**

Statement of Association

Mahoetahi is located at the junction of the highway north and Mountain Road, Bell Block and is in the rohe of Puketapu hapū. Historically it was a pā site located on a small hill surrounded on three sides by a flax and raupō swamp. The approach to the pa was by a ridge from a plain on the north east side. It closely identified with another nearby pā called Ngā Puke Turua.

During the land wars it was a site of a major battle involving local and neighbouring iwi against a force of about 1000 soldiers, and colonial militia. Outnumbered and on a site which was ill equipped for battle, the taua was quickly defeated and about fifty were killed and another third wounded. The chiefs were buried at St Mary's Church, New Plymouth and the others at Mahoetahi.

Mahoetahi is important to Puketapu because of its cultural and historical significance. It is a former pa, a Land Wars Site and an urupā. The significance of Mahoetahi is recognised nationally through its NZ Wars Graves rating.

Te Atiawa Areas of Importance **MAKARA SCENIC RESERVE**

Statement of Association

This site is located on the banks of the Waitara river and is in the rohe of Otaraua and Pukerangiora hapū.

The social, cultural, historical and spiritual importance of Makara Scenic Reserve illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **MANGAHINAU ESPLANADE RESERVE**

Statement of Association

This site is on the Waitara River and is in the rohe of Otaraua Hapū.

The social, cultural, historical and spiritual importance of Mangahinau Esplanade Reserve is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **MANGANUI RIVER AND ITS TRIBUTARIES**

Statement of Association

The Manganui springs from Taranaki Maunga and flows into the Waitara. It is in the rohe of Pukerangiōra and Otaraua Hapū.

The social, cultural, historical and spiritual importance of the Manganui River is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity and manawhenua.

Te Atiawa Areas of Importance **MANGATI STREAM AND ITS TRIBUTARIES**

Statement of Association

The Mangati is located at Bell Block and springs from the land and flows to the Tasman Sea. It is within the rohe of Puketapu Hapū.

The social, cultural, historical and spiritual importance of Mangati stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity and manawhenua.

Te Atiawa Areas of Importance **MANU STREAM AND ITS TRIBUTARIES**

Statement of Association

The Manu is located north of Waitara and springs from the land and flows to the Tasman Sea. It is located in the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of the Manu Stream illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **MOTUKARI STREAM AND ITS TRIBUTARIES**

Statement of Association

The Motukari is located north of Waitara and springs from the land and flows to the Tasman Sea. It is located in the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of the rivers, streams, lakes and waterways is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity and manawhenua.

Te Atiawa Areas of Importance **NGAHERE SCENIC RESERVE**

Statement of Association

Te Ngahere was a small pa on the outer reaches of the great Ngāti Tuparikino papapkainga, Tupare. Tupare was located on the banks of the Waiwhakaiho River and was built to the landscape which rose steadily from the river. This site is named Te Ngahere because it was covered in bush.

Tupare and Te Ngahere were abandoned in the wake of the 1830s invasion by a northern iwi and the habitants fled to Ōtaka at Ngā Motu. In the 1830s Ngāti Tuparikino returned to the area to live but did so in small whanau villages, rather than big pā sites. The only remainder of the original pa sites today are their names.

Today, Te Ngahere is a reserve in a small sheltered steep gully. In the mid-twentieth century it was replanted in exotics to replace the original bush, most of which had gone. Te Ngahere still attracts bird life, especially fantail, pigeon and tūi. The value of Te Ngahere is its ancestral connection and historical association with the great Tupare papakāinga.

Te Atiawa Areas of Importance **NGANGANA PĀ (BEING MANUKORIHI RECREATION RESERVE)**

Statement of Association

The site is located on the east side of the Waitara River in the rohe of Otaraua and Manukorihi hapū.

The social, cultural, historical and spiritual importance of the Manukorihi Recreation reserve is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **ONAERO RIVER AND ITS TRIBUTARIES**

Statement of Association

Part of the Onaero flows through the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of the Onaero River is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **PAPAMOA (BEING MEETING OF THE WATERS SCENIC RESERVE)**

Statement of Association

Papamoa was also a nohoanga, a camping site inhabited at certain times of the year to gather seasonal resources such as mahinga kai (kei kei, fish, eels, tii) and as a retreat to escape the heat of the summer. Kei kei and Tii were still being harvested from this site by Ngāti Te Whiti people in the 1950s. Papamoa was also used as a defensive lookout point and the site of several inter iwi battles. Papamoa was considered a tapu site because of the battles and many drownings in the turbulent river.

For Ngāti Te Whiti the site still retains its tapu nature. Today the site is a significant example of extensive ring plain forests and is important for its biodiversity, conservation and recreational values.

Te Atiawa Areas of Importance

PARAHAKI STREAM AND ITS TRIBUTARIES

Statement of Association

The Parahaki is located north of Waitara and springs from the land and flows to the Tasman Sea. It is located in the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of the Parahaki Stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

PUKETAKAUERE PA HISTORIC RESERVE

Statement of Association

This site is in the rohe of Otaraua Hapū. Puketakauere is an ancient pa site with a history characterised by both peaceful occupation and warfare. It was the site of one of the first battles of the first Taranaki War. At this time, the site included a ring ditch pa with an escape route through the nearby swamp, and an identical pā, Onukukaitara, which had covered passages and rifle pits. Due to the victory of Te Atiawa fighters over a large British military force at Puketakauere, the site, serves as a constant reminder for Te Atiawa of the courage and strength of Otaraua and Te Atiawa tūpuna. The British built a Blockhouse on Onukukaitara once it had been abandoned by Te Atiawa. The site and the Battle of Puketakauere has an important place in the history of the Taranaki Wars and the New Zealand Wars, and continues to have significant educational, historical, and symbolic value for Te Atiawa.

Te Atiawa Areas of Importance

ROBE STREET CONSERVATION AREA

Statement of Association

The Ngāti Te Whiti name for this area is Maramamao. Maramamao was located on the outer reaches of Puke Ariki Pā. Puke Ariki was a huge pa which stretched from the coast inland and was probably built by Te Rangi Apiti Rua sometime in the 1700s. In building the pā, Te Rangi Apiti Rua retained the landscape, a hill sloping upwards from the sea to a large flat area. The large flat area became the cultivation area Maramamao through which the stream, Mangaotuku, ran. The food resources of Maramamao supplied the people of Puke Ariki and nearby pā such as Mawhero and Pukaka.

There were other cultivation areas but Maramamao was the largest and most distant from the centre of the pā. Puke Ariki contained many marae and several urupā. One of the urupā, was located close to Maramamao where at least three chiefs, including Te Rangi Apiti Rua, are buried.

Puke Ariki, its constituent marae, urupā and cultivation area remain significant to Ngāti Te Whiti and are expressed and remembered through constant Kōrero tawhito/oral history and daily cultural practices.

Te Atiawa Areas of Importance

SENTRY HILL CONSERVATION AREA

Statement of Association

Te Morere is an ancient pā located on a hill on the banks of the Waiongona. It was named Te Morere (the swing), because of the tall swing tree which stood on the site and from which the youth used to swing out and dive into the nearby river. It is located in the rohe of Puketapu hapū.

During the first Taranaki war, Te Morere was a lookout by Puketapu warriors to observe British military movements. In 1863 the British built a redoubt on Te Morere and called the site Sentry Hill. In 1864 Taranaki warriors, including from Te Atiawa, attacked the British redoubt at Te Morere resulting in the deaths of over 50 Māori. The battle of Te Morere is remembered through a haunting poem of mourning composed by Tamati Hone. The poem ends with a comparison of the dead at Te Morere to a wrecked and shattered fleet of waka

"How vain your valour, how vain your charge against Morere's walls
Lost on that rocky coast of death are all my crews

Tanui, Tokomaru, Kurahaupo, Aotea

Aue, my brave canoes, Lie broken on the shores."

Today the site is dissected by the road. Although there is very little physical evidence of its former glory, Te Morere remains in the cultural memory of Puketapu and Te Atiawa.

Te Atiawa Areas of Importance

SENTRY HILL REDOUBT HISTORIC RESERVE

Statement of Association

Te Morera is an ancient pā located on a hill on the banks of the Waiongona. It was named Te Morere (the swing), because of the tall swing tree which stood on the site and from which the youth used to swing out and dive into the nearby river. It is located in the rohe of Puketapu Hapū.

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Te Atiawa Areas of Importance

TAPUAE STREAM AND ITS TRIBUTARIES

Statement of Association

Part of the Tapuae flows through the rohe of Ngāti Te Whiti Hapū.

The social, cultural, historical and spiritual importance of the Tapuae River is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

TE HENUI STREAM AND ITS TRIBUTARIES

Statement of Association

The Te Henui is located in east New Plymouth. It springs from the land and runs to the Tasman Sea. At its source it is very narrow but widens as it flows to the sea. The Te Henui is in the rohe of Ngāti Te Whiti Hapū. Te Henui means "the huge mistake" and refers to an incident which is no longer remembered.

The Te Henui was very important because of the abundant resources which sustained the physical and metaphysical needs of the papakāinga and communities along its banks, such as Pūrakau, Autere and Kerau. Autere was also a fishing village from which Hapū would launch their waka and sail to offshore fishing grounds. Fish and kaimoana were collected from the river and the nearby reef, Arakaitai, and these provided staple as well as gourmet foods. Kaimoana and fish were gathered according to strict protocols to ensure sustainability and good health. Kaimoana and gourmet foods were important to uphold customs such as manaakitanga. Although the resources were important for physical survival and customary practises were important, the land was always important for without it the Hapū had nothing.

Further up river were the papakāinga of Pukewarangi, Puketarata and Parihamore. These papakāinga were located close to each other and shared resources and strategies in times of conflict with other Hapū or Iwi. Pukewarangi and Parihamore were settlements as well as defensive strongholds whilst Puketarata was a settlement which stored food reserves.

Te Atiawa Areas of Importance

TE HENUI STREAM CONSERVATION AREA

Statement of Association

Te Henui means "the huge mistake" and refers to an incident that is no longer remembered. The Te Henui River and nearby papakāinga were very important to Ngāti Te Whiti. The three papakāinga were close to each other and their occupants shared resources and strategies in times of conflict with other Hapū or Iwi. All sites are situated on the Te Henui River which was used for transport to the papakāinga down river and on the coast.

The papakāinga on the coast at the Te Henui river mouth were Purakau, Autere and Kerau. Fish and kaimoana were collected from the river and the nearby reef, Arakaiai and these provided staple as well as gourmet food. Kaimoana and fish were gathered according to strict protocols to ensure sustainability and good health and customary practices such as manaakitanga. Although the resources were important for physical survival and customary practises were important, the land was always important for without it the Hapū had nothing. The relationship with the land and the landscape was that of kaitiaki, survival and heritage. The land and its constituent resources were perceived in physical terms as ability to survive and secondly in spiritual terms as turangawaewae/birth right. The ultimate aim was communal well being and balance. From 1841 the land at the mouth of the Te Henui was set aside as reserves for the use of Ngāti Te Whiti. During the construction for the sea wall the shape of the mouth of the Te Henui was changed so that the river flows to the sea in a straight line.

Today, the only physical remains are those of the papakāinga above as well as the reef, Arakaitai, from which Hapū members still gather kaimoana.

Te Atiawa Areas of Importance **WAIU STREAM AND ITS TRIBUTARIES**

Statement of Association

The Waiau is located north of Waitara and springs from the land and flows to the Tasman Sea. It is in the rohe of Ngāti Rahiri.

The social, cultural, historical and spiritual importance of the Waiau Stream illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Apart from its other important aspects the Waiau is important as a boundary marker between Te Atiawa and Ngāti Mutunga. The Te Atiawa northern coastal boundary point, Te Rau o Te Huia, is on the banks of the Waiau.

Te Atiawa Areas of Importance **WAIHI STREAM AND ITS TRIBUTARIES**

Statement of Association

The Waihi is located north of Waitara and springs from the land and flows to the Tasman Sea. It is located in the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of Waihi Stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **WAIHOWAKA STREAM AND ITS TRIBUTARIES**

Statement of Association

The Waihowaka is located in Bell Block and springs from the land and flows to the Tasman Sea. It is within the rohe of Puketapu Hapū.

The social, cultural, historical and spiritual importance of the Waihowaka Stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance **WAIONGANA STREAM AND ITS TRIBUTARIES**

Statement of Association

The Waiongana flows from Taranaki Maunga to the Tasman Sea and is in the rohe of Pukerangiora and Puketapu Hapū.

The social, cultural, historical and spiritual importance of the Waiongana Stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

WAIONGANA STREAM CONSERVATION AREA

Statement of Association

The resources of the lower reaches of the Waiongana supported many papakāinga, such as Ngā Puke Turua, Mahoetahi, Te Morere and Manutahi. The river itself provided an abundance of large tuna, koura, inanga and piharau. The banks of the river provided flax, manuka and raupō.

The reefs at the mouth of the Waiongana provided pipi, paua, kina, mussels, crab and seaweed. Hapū members would camp at the papakāinga at the river mouth during the spring and summer specifically to gather kaimoana and larger ocean fish. The men would go out to fishing if the day and weather was right and only caught one species each day. Sometimes the fishing party met with disaster, as related in the following kōrero tawhito (oral history). One morning about twenty waka and two hundred men prepared to set off to the Hapūka fishing grounds known as Waitawhetawheta. A dispute arose between two members about a particular seat on a particular waka during which fishing gear was thrown into the water. The offended party was the tohunga Mokeuhi who then refused to go out fishing. Whilst the fleet was at sea Mokeuhi conjured up an immense storm which devastated the fleet. There were only two survivors, Kawenui who beached at Urenui and Te Kohita who beached at Motupipi in the South Island.

Te Atiawa Areas of Importance

WAIPAPA ROAD CONSERVATION AREA

Statement of Association

Waipapa is located on the banks of the Waitara River and is in the rohe of Otaraua and Manukorihi Hapū. The social, cultural, historical and spiritual importance of the Waipapa Road Conservation Area is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

WAIPAPA STREAM AND ITS TRIBUTARIES

Statement of Association

The Waipapa is located north of Waitara and springs from the land and flows to the Tasman Sea. It is located in the rohe of Ngāti Rahiri Hapū.

The social, cultural, historical and spiritual importance of the Waipapa Stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

WAIPU STREAM AND ITS TRIBUTARIES

Statement of Association

The Waipu Lagoons are located on the coast and are within the rohe of Puketapu Hapū.

The social, cultural, historical and spiritual importance of the Waipu is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.



Te Atiawa Areas of Importance

WAITAHA STREAM AND ITS TRIBUTARIES

Statement of Association

The Waitaha is located in Bell Block and springs from the land and flows to the Tasman Sea. It is in the rohe of Puketapu Hapū.

The social, cultural, historical and spiritual importance of the Waitaha Stream is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

WAITARA RIVER AND ITS TRIBUTARIES

Statement of Association

There were many papakāinga along the banks of the Waitara, such as Ngangana, Kuikui, Te Whanga, Huirapa, Werohia, Aorangi, Puketapu, Mamaku, Tokitahi, Purimu, Karaka, Te Awaiotetaki, Manukorihi, Pukerangiora, Mangaemiemi / Te Ahikaroa, Wakatete, Kerepapaka, Tahunakau, and Taumaatene. The Waitara River provided an abundance of fish, inanga, tuna/eel, piharau, kahawai, yellow eyed mullet, flounder, herrings, kokopu, weka, pukeko, ducks. One of the river's tributaries, the Tangaroa, was an important spawning area for inanga and native fish. The Hapū fished from purpose built platforms and this technique continues today to describe customary fishing locations on the river. Each whakaparu was named and these names remain and continue to be used by Te Atiawa today. The mara / gardens along the river included Te Rare, Mangahinau, Panekeneke, Opakaru, Te Ramarama and Mangaemiemi. The ururpaa include Te Rohutu, Manaaiti, Pukehou, Teremutu and Ngangana. The natural defences and height provided by the cliffs provided control of the Waitara River. Aorangi along with Pukekohe and Manukorihi, formed a triangle of strongly defended paa in the valley. In its upper reaches, its cliffs provided defence for Pukerangora Pa and in one battle many Pukerangiora people jumped from the cliffs into the Waitara River.

The river continues to be, an important resource for mahinga kai. Contemporary uses of the site include cultural harvesting (fish, whitebait) and the site is valued because of its biodiversity and conservation values.

Te Atiawa has a physical, historical and spiritual relationship with the Waitara River. All elements of the natural environment possess a life force, or mauri. This is a critical element of the spiritual relationship of Te Atiawa to the Waitara River which has a spiritual force and personality of its own.

The Waitara River has been, and continues to be an integral part of the social, spiritual and physical fabric of Te Atiawa and is celebrated in karakia, waiata and pepeha.

Te Atiawa Areas of Importance

WAITARA RIVER NO 1 MARGINAL STRIP

Statement of Association

The site is part of the Waipapa Road Conservation Area/Nganana and is in the rohe of Otaraua hapū.

The social, cultural, historical and spiritual importance of the Waitara River No.1 Marginal Strip is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

WAITARA WEST MARGINAL STRIP

Statement of Association

The site is located on the coast at the mouth of the Waitara River and is in the rohe of Puketapu and Otaraua Hapū.

The social, cultural, historical and spiritual importance of the Waitara West Marginal Strip is illustrated through Te Atiawa traditions and histories. The traditions and histories also represent the spiritual links and an unbroken continuity with Te Atiawa tūpuna and present generations and reinforce Te Atiawa tribal identity.

Te Atiawa Areas of Importance

WAIWHAKAIHO RIVER MOUTH (CROWN LAND CONSERVATION AREA)

Statement of Association

This site is at the mouth of the Waiwhakaiho River on the edges of the great pa, Rewa Rewa. The site is located in the rohe of Ngāti Tawhirikura and Ngāti Te Whiti. The river mouth, the wetlands and associated water bodies were important because of its resources such as raupō (for thatching) water, ferns (for food and blankets) berries, birds, fish, flax (for clothing) and kaimoana reefs. Fish and whitebait, were caught from particular purpose built sites called whakaparu and these remain and continue to be used today. The sand dunes were used as gardens for food crops such as kūmara and plants such as pingau, which was used to colour clothing flax. The sand dunes were also used as a temporary urupā because the heat of the sand assists the breaking down of the flesh. Often the kōiwi/bones were removed and interred elsewhere. Rewa Rewa was located on a hill above the river mouth and was an ancient pa which over the generations housed a large population.

The Waiwhakaiho River supported many papakāinga from its river mouth to its source on Taranaki, such as Rewa Rewa, Waiwhakaiho, Raiomiti, Te Ngaere, Pukemapo, Te Renega, Pukeotepua and Papamoa. The river was used as a means of transport to nearby papakāinga to trade food and taonga and to maintain whanaungatanga. The river is the boundary marker between Ngāti Te Whiti and Ngāti Tawhirikura and is embodied in pepeha, waiata and kōrero tawhito.

Te Atiawa Areas of Importance

WAIWHAKAIHO RIVER AND ITS TRIBUTARIES

Statement of Association

The Waiwhakaiho River is located in the suburb of Fitzroy, New Plymouth and flows from Taranaki Maunga to the Tasman Sea. It is one of the largest rivers in the Te Atiawa rohe and has several tributaries including the Mangaone and Mangorei. At its mouth today there is a man made waterway, Lake Rotomanu which was created in the 1960s to provide a habitat and refuge for wildlife and is also used for recreational purposes.

The Waiwhakaiho River is the ancient boundary marker between Ngāti Te Whiti and Ngāti Tawhirikura and is embodied in pepeha and kōrero tawhito. In former times the Waiwhakaiho River marked the boundary of the rohe of Puketapu, Ngāti Tawhirikura and Ngāti Te Whiti.

The Waiwhakaiho River was very important because of the abundant resources which sustained the physical and metaphysical needs of the papakāinga and communities along its banks, papakāinga such as Rewa Rewa, Waiwhakaiho River, Raiomiti, Te Ngaere, Pukemapo, Te Renega, Pukeotepua and Papamoa.

The Waiwhakaiho River mouth, the wetlands and associated water bodies were important because of resources such as raupō, water, ferns, berries, birds, fish, flax and kaimoana. The river fish and whitebait were caught from particular purpose built sites called whakaparu and these remain and continue to be used today.

There were several papakāinga on the river from its mouth to further inland. Rewa Rewa was located on a hill above the river mouth and was an ancient pā which, over the generations, housed a large population. Other papakāinga along the river were Waiwhakaiho River, Raiomiti, Te Ngaere, Pukemapo, Te Rerenga, Puke o Te Pua and Papamoa. The river was also used as a means of transport to nearby papakāinga to trade food and taonga and to maintain whanaungatanga.

The Waiwhakaiho River remains an important river today. Te Atiawa has a physical, historical and spiritual relationship with the Waiwhakaiho River. All elements of the natural environment possess a life force, or mauri. This is a critical element of the spiritual relationship of Te Atiawa to the Waiwhakaiho River which has a spiritual force and personality of its own.

The Waiwhakaiho River has been, and continues to be an integral part of the social, spiritual and physical fabric of Te Atiawa and is celebrated in karakia, waiata and pepeha.

Te Atiawa Areas of Importance

TE ATIAWA COASTAL MARINE AREA FROM HEREKAWA STREAM TO ONAERO RIVER

Statement of Association

This statement describes the Te Atiawa association and values in relation to its coastal marine area. The Te Atiawa rohe commences from Te Rau o Te Huia, along the coast westward to the Herekawe, inland to Tahuna-a-Tūtawa, thence to Whakangeregere, continuing to Taramoukou, thence turning southward to Te Rau o Te Huia.

The coastal marine area was part of the natural world which encompassed the expanses of Ranginui, the immensity of Papatuanuku, and the vastness of Tangaroa. It was an important part of the tribal rohe and included land, outlets, streams, rivers, lagoons, reefs, beaches and sand hills. Just as Hapū exercised mana over the whenua, so it exercised mana over the moana.

The Te Atiawa social, cultural and spiritual relationship with the coastal marine area was very important and is one of long-standing which began with the first Te Atiawa tupuna and has continued through the centuries to the present day. Many of the first settlements in the rohe, such as Ngā Motu and the Waitara River, were on the coast. The papakāinga was the centre of social, cultural, economic and spiritual wellbeing. Papapakāinga such as Puke Ariki, Purakau, Rewa Rewa and Mangati were located on the coast close to the valued resources of water, mahinga kai and kaimoana. The resources sustained and nourished the Iwi and were important to ensure survival and to maintain the spiritual, cultural and economic prosperity of Te Atiawa. The spiritual relationship was embodied in the ideologies, kawa, karakia and tikanga such as rahui. Every reef and lagoon was named and these names remain and the resources are harvested and customary rights continue to be exercised. Examples of the reefs are Papamoa, Tarawhata, Kawarua, Arakaitai and Mangati. The sites also include urupā and tauranga waka, such as Autere. Te Atiawa has and continues to exercise, its kaitiakitanga on the coastline from the Herekawe to Te Rau o Te Huia.

The cultural and spiritual importance of the coastline and marine area continues to be embodied in waiata pepeha, traditions and histories and continues to underpin the mana and mauri of the Te Atiawa Hapū. These ideologies and histories reinforce the connection, tribal identity and continuity between the generations to the present. The statement above illustrates the strong and ongoing Te Atiawa connection and association with the coastal marine area from the Herekawe to Te Rau O Te Huia.

CULTURAL REDRESS PROPERTIES

Te Atiawa Areas of Importance

MATAORA, PARARAKI AND MOTUOTAMATEA MOTUROA, MOTUMAHANGA, WAIKARANGA AND WHAREUMU TOKATAPU AND KORUANGA/MOTUKUKU

Statement of Association

The Ngā Motu Islands are jointly vested in fee simple in the Trust and Te Kāhui o Taranaki Trust, the post settlement governance entity mandated to represent Taranaki Iwi. These islands are:

- Mataora, Motuotamatea and Pararaki: 2.8150 hectares, approximately, being Parts Section 181 Omata District (Mataora (Round Rock), Pararaki (Seagull Rock) and Motuotamatea (Snapper Rock)). Part computer freehold register TNB3/32;
- Motumahanga, Moturoa, Waikaranga and Whareumu: 0.3550 hectares, approximately, being Part Moturoa. 1.8150 hectares, approximately, being Part New Plymouth Roadstead (Whareumu (Lion Rock) and Part Moturoa). Part computer freehold register TN102/148. 2.6300 hectares, approximately, being Motumahanga (Saddleback) and Waikaranga (Seal Rocks). Part Computer freehold register TN144/101; and
- Tokatapu and Koruanga/Motukuku: 0.2230 hectares, approximately, being Koruanga and Tokatapu. Part computer freehold register TN144/101.

There are a number of wāhi tapu on or near these islands. These islands were originally called Ngā Motu, which means "The Islands". They were renamed the Sugar Loaf Islands by Captain Cook in 1770. People of Te Atiawa and Taranaki iwi occupied each of the islands, with the exception of Pararaki. These islands bear the evidenced of Māori occupation in the form of terracing and kūmara pits. Apart from Paritūtu, Motumahanga is the most striking example, with evidence of extensive fortifications, huts and evidence of a small plantation. Pararaki was a source of seagull eggs. The islands and the adjacent mainland were often the scene of vigorous battles. This resulted in Te Atiawa moving to nearby sites, Mikotahi and Moturoa islands, or making the journey south to settle in Cook Strait. Pūkāwa associated with these islands include Koruanga (sometime referred to as Motukuku) and it is listed as a wāhi tapu as it remains the burial ground for the chiefs of Ngāti Te Whiti. All of the islands are of cultural significance to Ngāti Te Whiti hapū and Ngā Mahanga and Ngāti Tairi hapū of Taranaki iwi. For Ngāti Te Whiti, the islands are particularly significant "as they contain cultivation, habitation and burial places" (W Keenan for T Culloch letter to the Department of Conservation (DOC) 27/3/96). "The Ngā Motu/Sugar Loaves area remains of extreme significance because of its ancestral historical association. This association remains and will remain, an integral component of the Ngāti Te Whiti identity" (W Keenan, letter to DOC 1/4/96).

Te Atiawa Areas of Importance

TAUMATA

Statement of Association

Taumata Historic Reserve is the site of the grave of a chief of the Tarurutangi District who lost his life in a tribal dispute over the sale of land to the Government. Prior to the burial of the chief, Rawiri Waiaua, the reserve land has no known special historical or archaeological significance.

Rawiri and his party had just started marking the boundaries of the block of land which they were willing to sell to the Government, and which is now known in the survey records as the Tarurutangi District, when they were fired upon by a party led by Waitere Katatore. Rawiri died on August 6th 1854 three days after being wounded. His death started a feud within the Puketapu hapū of the Te Atiawa tribe, which resulted in some sixty deaths before a truce was declared in 1856. The dispute did not finally end until 1858, when Katatore was killed and the chief who had ordered his killing had been driven from the district.





8. HE ĀPITIHANGA - APPENDICES

APPENDIX 1 - CONTACT INFORMATION FOR TE KOTAHITANGA AND NGĀ HAPŪ O TE ATIWA

The contact details for Ngā Hapū o Te Atiawa can be accessed through Te Kotahitanga or online at www.teatiawa.iwi.nz.

Te Kotahitanga o Te Atiawa Trust

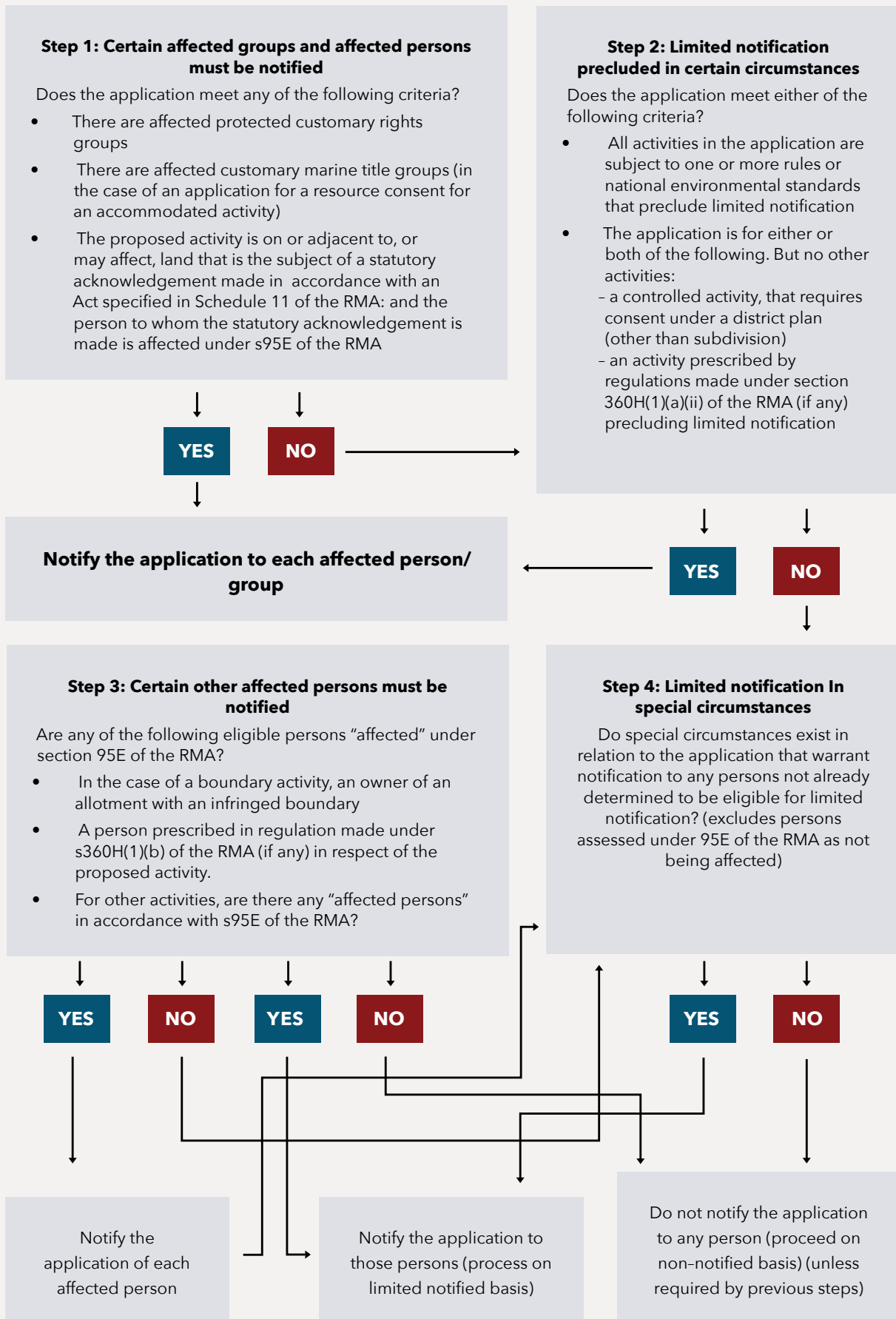
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APPENDIX 2 - LIMITED NOTIFICATION DECISION FOR RESOURCE CONSENT UNDER THE RESOURCE MANAGEMENT ACT 1991 (RMA)





TE KOTAHITANGA O
TE ATAWA
TARANAKI

ENVIRONMENTAL
MANAGEMENT PLAN

2019



Date 9 June 2020

Subject: **Key Native Ecosystems programme update**

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

Document: 2441488

Purpose

1. The purpose of this memorandum is to present for Members' information an update on the identification of seventeen new Key Native Ecosystem (KNE) sites.

Executive summary

2. The *Biodiversity Strategy for the Taranaki Regional Council* ('the Biodiversity Strategy') sets out four strategic priorities for the Taranaki Regional Council (the Council), one of which relates to protection of KNEs on privately owned land.
3. KNEs refer to terrestrial (land) areas identified by the Council as having regionally significant ecological values and which are targeted for ongoing protection.
4. Officers work with interested landowners, including iwi, and community groups to promote the voluntary protection and enhancement of ecological values associated with the sites.
5. All landowners can seek an assessment of their particular site for potential involvement in the KNE programme. When opportunities arise, new sites are assessed in relation to their regional significance, and/or existing information and databases updated.
6. Protection of KNEs is part of the Council's **non-regulatory** work and involves working with interested landowners and others through the preparation and implementation of biodiversity plans, the provision of environmental enhancement grant funding, and/or assisting with pest and weed control.
7. The ongoing identification and assessment of sites with potentially regionally significant indigenous biodiversity values has resulted in seventeen new sites being identified as KNEs covering a total area of 3,157 ha this financial year.

8. With the addition of the new sites, the Council has so far identified 310 KNEs covering approximately 126,553 hectares in the region.
9. 257 of the KNE sites are partially or completely privately owned. Together, they cover approximately 16,807 hectares or 26% of the total area of indigenous vegetation in Taranaki in private ownership.
10. KNE sites target the most vulnerable and at risk types of indigenous vegetation and do not cover all indigenous vegetation types.
11. 163 KNE sites are currently under active management through a Council Biodiversity Plan

Recommendations

That the Taranaki Regional Council:

- a) receives this memorandum and the attached inventory sheets for Georges Elephant, Piraunui, Fairy Forest, The Moeawatea, McColl's East Bush Block, Allerby's Bush, Orions Belt, Fern Grove, Vujcich Piakau Stream Forest, Fisher Family Bush, Waha o Tane, Watatao, Te Kahu, PKW Farm 7 Inaha Stream, Green School, Cornwall Park Bush Remnants, McKenzie Wetland
- b) notes that the aforementioned sites have indigenous biodiversity values of regional significance and should be identified as Key Native Ecosystems.

Background

12. To assist it in giving effect to its statutory functions for indigenous biodiversity under the *Resource Management Act 1991*, the Taranaki Regional Council (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.
13. The Council's management approach is to work with interested landowners, community groups and other interested parties to promote the voluntary protection and enhancement of ecological values associated with KNE sites on privately owned land. It involves the provision of a property planning service and other assistance, including the preparation and implementation of biodiversity plans, the provision of environmental enhancement grant funding, and/or assisting with pest and weed control.
14. The identification of KNEs is ongoing by Council. All landowners can seek an assessment of their particular site for potential involvement in the KNE programme. When opportunities arise, new sites are assessed in relation to their regional significance, and/or existing information and databases updated.

KNE site inventory process

15. Council officers have recently investigated and consulted with landowners to identify a further seventeen sites totalling 3,157 hectares and recommend they be adopted as a KNE. The candidate sites are:

- Georges Elephant
 - Piraunui
 - Fairy Forest
 - The Moeawatea
 - McColl's East Bush Block
 - Allerby's Bush
 - Orion's Belt
 - Fern Grove
 - Vujcich Piakau Stream Forest
 - Fisher Family Bush
 - Waha o Tane,
 - Watatao
 - Te Kahu,
 - PKW Farm 7 Inaha Stream
 - Green School
 - Cornwall Park Bush Remnants
 - McKenzie Wetland.
16. All the sites have been assessed by officers as significant in accordance with criteria set out in Bio Policy 4 of the *Regional Policy Statement for Taranaki* (2010), i.e. rarity and distinctiveness, representativeness or ecological context. Copies of the inventory sheets for the new sites are attached to this item.
17. With the addition of the new sites, the Council has so far identified 310 KNEs (covering approximately 126,553 hectares), which includes public conservation land. Of the 289,000 hectares of indigenous vegetation in the region, approximately 64,000 hectares is in private ownership.
18. A total of 257 of the KNE sites, covering approximately 16,807 hectares, are partially or completely privately owned. This represents around 26% of the privately owned indigenous vegetation in the region. However, of note KNE sites do not cover all indigenous vegetation in the region but rather the most vulnerable and at risk types of indigenous vegetation.
19. 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. As previously noted, protection is implemented through the preparation and implementation of biodiversity plans, the provision of environmental enhancement grant funding, and/or assisting land occupiers and/or care groups with pest and weed control.
20. The *2018–2028 Long Term Plan* includes, amongst other things, a target to maintain and regularly update the Council's Inventory of KNEs. The identification of the additional KNEs gives effect to that commitment.

Decision-making considerations

21. 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

22. 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

23. 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

24. 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

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

Appendices/Attachments

Document 2434870: George's Elephant KNE Inventory

Document 2418018: Piraunui KNE Inventory

Document 2422989: Fairy Forest KNE Inventory

Document 2399362: The Moeawatea KNE Inventory

Document 2347828: McColl East Bush Block KNE Inventory

Document 2396514: Allerby's Bush KNE Inventory

Document 2402906: Orion's Belt KNE Inventory.

Document 2458004: Fern Grove KNE Inventory

Document 2470154: Vujcich Piakau Stream Forest KNE Inventory

Document 2435004: Fisher Family Bush KNE Inventory

Document 2434863: Waha o Tane (Bird chorus) KNE Inventory

Document 2436592: Watatao KNE Inventory

Document 2474755: KNE Inventory sheet Te Kahu (PKW Farms)

Document 2416895: KNE Inventory PKW Farm 7 Inaha stream

Document 2477296: GS KNE Inventory

Document 2461256: KNE Inventory - Cornwall Park Bush Remnants

Document 2458549: McKenzie Wetland KNE Inventory

George's Elephant

At a glance

TRC Reference: BD/9683	LENZ:	F1.3b Not threatened
Ecological District: Matemateaonga	National:	Priority 4 - Threatened Species
Land Tenure: Private		
Area(ha): 57.9	Regional:	Key Native Ecosystem
GPS: 1743306X & 5615705Y	Regional Ecosystem Loss:	Less reduced >50% left

Habitat: Forest Remnant

Bioclimatic Zone: Lowland

Ecosystem Type: MF21: Tawa, kamahi, rimu,
northern rata , black beech
forest

General Description

George's Elephant forest remnants are located within the Waitotara catchment, approximately 17kms north of Waverley, in South Taranaki. Four separate remnants make up a total of 57.9ha of well-established regenerating native forest. The site is directly connected to large areas of existing native forest and exotic forestry. It provides important ecological connectivity to other Key Native Ecosystems in this area including the Moeawatea, Nukuhau Lakes Catchment and Mt. Hiwi KNE's, along with DOC land and other private QEII covenants. The underlying geology is steep dissected sandstone typical of the Matemateaonga Ecological District.

Ecological Features

Flora

The majority of the forest block is well established regenerating native forest. The forest canopies are mixed and varied in places, with tawa, hinau, pigeonwood, kamahi, rewarewa, manuka and tree ferns. The understory is dominated mainly by unpalatable species such tree ferns, mingimingi and manuka. Notable flora species are present including five species of rata, which have recently been listed as 'threatened' due to recent myrtle rust threats.

Fauna

Notable birdlife recorded includes the 'At Risk' North Island brown kiwi and North Island robin. Common native birds in the area include the fantail, tui, bellbird, grey warbler, pied tomtit, silvereye, New Zealand pigeon and morepork. Freshwater crayfish and the 'At Risk' redfin bully are present. Other notable native fauna likely to be present include bats, additional fish, reptiles and invertebrates.

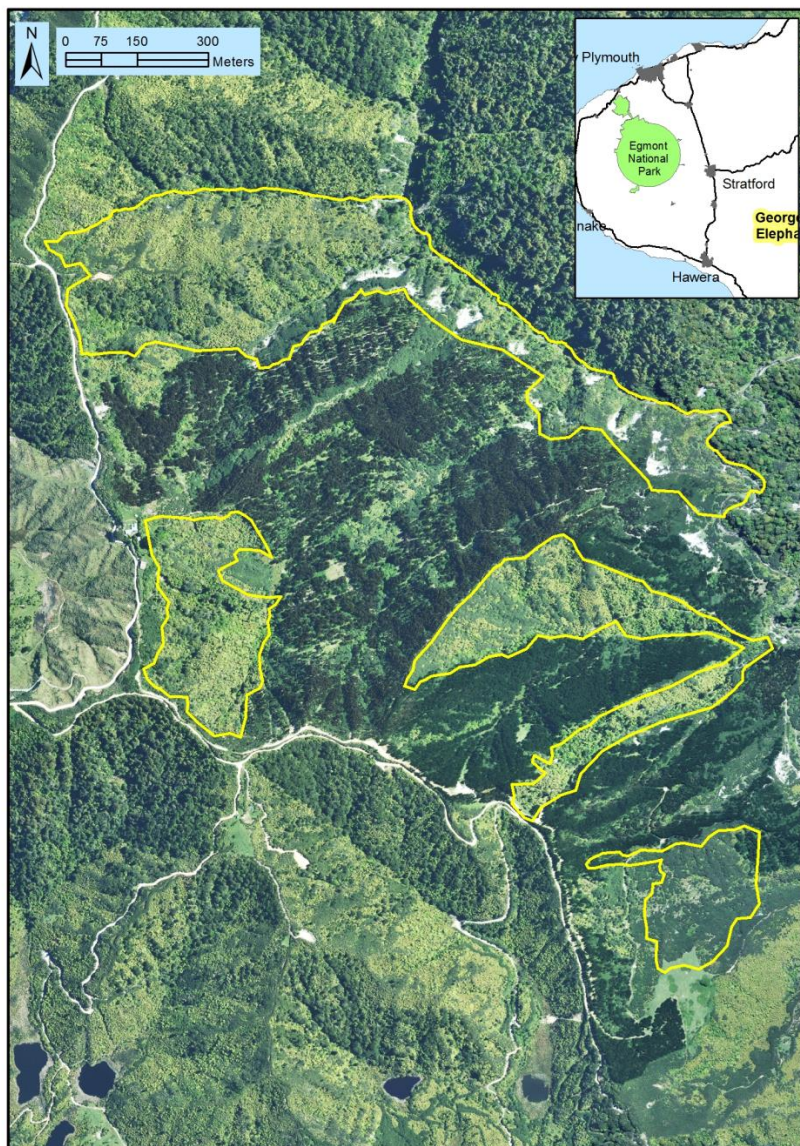
Ecological Values

Ecological Context - Medium	Collectively, the remnants make up 57.9 ha and are connected to existing native habitats in the area. The site provides good connectivity to other Key Native Ecosystems and habitats in this area including the Nukuhau Lakes Catchment, Mt. Hiwi KNE, Private QEII covenants and Department of Conservation Areas
Rarity and Distinctiveness - Medium	Contains a range of notable fauna including the North Island brown kiwi and North Island robin. A range of other notable fauna will be present. Also contains notable flora species such as manuka, and five species of rata, which have recently been listed as 'Threatened' due to potential vulnerability to myrtle rust.

Representativeness - Low	Contains indigenous vegetation on a 'Less Reduced' LENZ environment and is a remnant of an ecosystem type that is still well represented in Taranaki (>50% remaining)
Sustainability - Positive	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	The forest is recovering well from previous land use in places despite browsing.
Herbivores - High	Potential high risk from browsers such as possums, goats and deer in this area on palatable flora species. Bait stations are in place for the control of possums at present.
Predators - High	Potential predator threats are high and include rodents, mustelids, possums, feral cats and hedgehogs.
Weeds - Low	Currently low impacts of weeds in this area.



Piraunui

At a glance

TRC Reference: BD/9668	LENZ:	C2.1a Acutely threatened
Ecological District: Matemateaonga		F5.2c Acutely threatened
Land Tenure: Private		F1.3b Not threatened
Area(ha): 104.7	National:	Priority 4 - Threatened Species
GPS: 1759978X & 5607801Y	Regional:	Potential KNE
	Regional	Acutely Threatened <10% left
Habitat: Forest Remnant	Ecosystem Loss:	At risk 20-30% left
Bioclimatic Zone: Lowland	Protection Status:	Local Government
Ecosystem Type: MF21: Tawa, kamahi, rimu, northern rata , black beech forest	Catchment:	Waitotara (339)
MF7.3: Tawa, pukatea, podocarp forest		
WF8: Kahikatea, pukatea forest		

General Description

Piraunui consists of three sites which are located on privately owned land 19kms northeast of Waitotara in South Taranaki. The site is within the Matemateaonga Ecological District.

Combined the three sites cover 104.7ha and are made up of a mix of original lowland forest and modified gorse/regenerating native forest typical of the south Taranaki area. Other nearby KNE's include Mangapuni, Skilton's Bush, Lake Waikato, Lake Waikare and the Waitotara Wharangi Block. The site is located within the Waitotara River catchment.

Ecological Features

Fauna

Notable birdlife recorded in the area includes the 'At Risk' New Zealand falcon, North Island brown kiwi, fernbird, mohoua whitehead and North Island robin. Common native birds in the area include the fantail, tui, bellbird, grey warbler, pied tomtit and New Zealand pigeon. Other notable native fauna present includes the 'Threatened' long-tailed bat and the 'At Risk' redfin bully, longfin eel and inanga. Other notable native fauna will also be present such as additional native fish, reptiles and invertebrates.

Fauna

Canopy vegetation of the original forest area primarily consists of a mix of beech, hardwood, broadleaf and podocarp. The modified areas are dominated by manuka, kanuka with mahoe, rewarewa, hinau and young emergent black beech present in places. Notable species may be present including tawhirikaro and Kirk's kohuhu.

Ecological Values

Ecological context - High	Close to and provides connectivity with Mangapuni, Skilton's Bush, Lake Waikato, Lake Waikare and the Waitotara Wharangi Block KNE's.
Rarity and Distinctiveness - High	Contains the 'Threatened' long tailed bat. Also contains the 'At Risk' New Zealand falcon, North Island brown kiwi, North Island robin, mohoua whitehead, fernbird, redfin bully, inanga and the 'Regionally Distinctive' black beech. Other threatened and notable species are also likely to be present.

Representativeness - High

Contains indigenous vegetation on F5.2c & C2.1a ('Acutely Threatened <10% indigenous cover remaining') LENZ environment.

Sustainability - Positive

In good and recovering vegetative condition and large in area. Key ecological processes still influence the site. Under appropriate management, it can remain resilient to existing or potential threats.

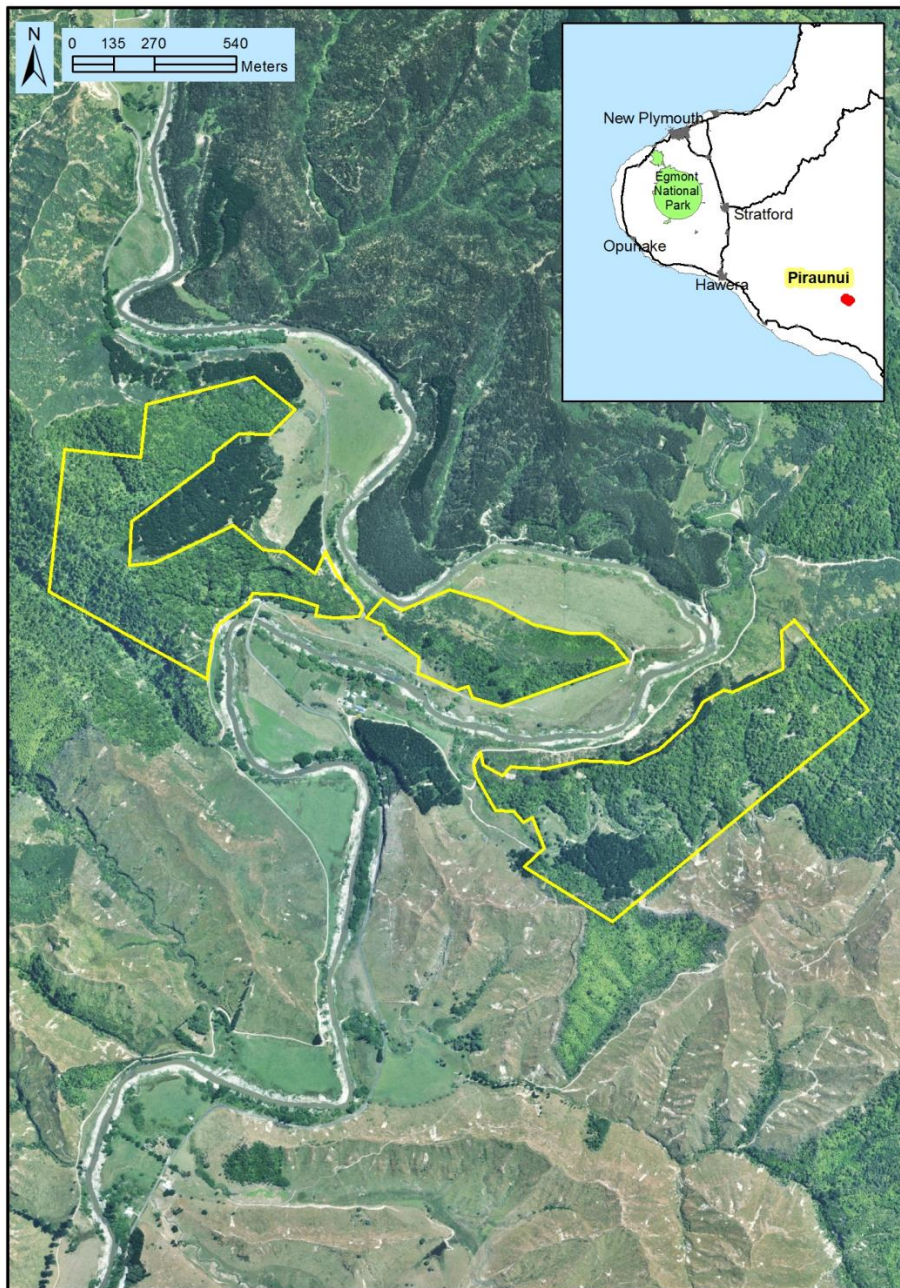
Other Management Issues

Herbivores - High

Goats and deer are present.

Predators - High

Possums, stoats, rats and feral cats are present



#2422989

Fairy Forest

At a glance

TRC Reference: BD/9687	LENZ:	F5.2a Acutely threatened F7.2a At risk F1.1b Not threatened
Ecological District: North Taranaki	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 3.14	Regional Ecosystem Loss:	Chronically threatened 10-20% left
GPS: 1717331X & 5667068Y	Protection Status:	QEII Covenant
Habitat: Forest Remnant	Catchment:	Waitara (395)
Bioclimatic Zone: Lowland		
Ecosystem Type:		
		WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest

General Description

Fairy Forest is located on privately owned land on Toe Toe Road, Tarata, 13km east of Inglewood. The 3.14 ha site is subject to a QEII Covenant and is comprised of a 1.9 ha remnant of lowland tawa, kohekohe, rewarewa, hinau, podocarp forest, the balance being recently retired from farming and planted in native vegetation. The site is bordered by an unnamed tributary to the Waitara River. The forest remnant provides good connectivity to other habitat in the local area, including; small pockets of native forest, wetlands and riparian areas on adjacent farmland and along the Waitara River; the nearby Tarata Conservation Area and Taramoukou Conservation Area, and; nearby KNE's: Ouapui Forest Sanctuary, Junction Road and Totara Mahanga.

Ecological Features

Fauna

Good birdlife is present in the remnant including, kereru, grey warbler, bellbird, tui and fantail. A small stream passes along the foot of the remnant and provides good habitat for native freshwater fish and koura. Notable galaxiid species may be present. There is adequate habitat for terrestrial and arboreal reptile species, ranging from leaf tiller, 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.

Flora

The canopy of the bush remnant is dominated by totara, tawa and rewarewa. A variety of native vines and epiphytes are present. The understorey is in recovering condition having only been fenced to exclude grazing livestock recently, and includes mahoe, pigeonwood, pate, Rhabdothamnus and numerous ground and tree ferns. The site contains various myrtaceous species (rata vines and manuka) which have been classified as being either 'Nationally Vulnerable' or 'At Risk', owing to the recent introduction of myrtle rust to New Zealand.

Ecological Values

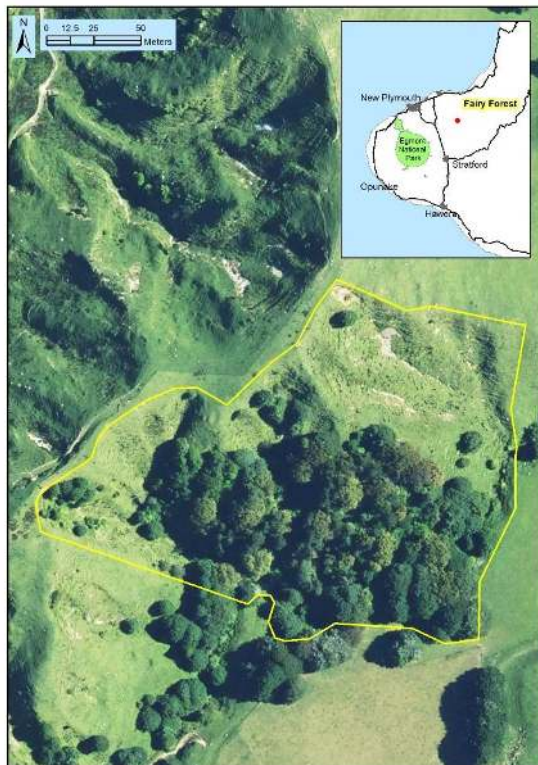
Ecological Context - Medium	Provides additional habitat and greater connectivity with other Key Native Ecosystems and Department of Conservation reserves in the area.
Rarity and Distinctiveness - Medium	The site contains the 'Nationally Vulnerable' climbing and white rata vines. Also contains the 'At Risk' manuka. Other notable

#2422989

Representativeness - Medium	species may be present at the site that have not been detected during the limited surveys to date. 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 in an area classified as 'Acutely Threatened' (F5.2a, LENZ environment).
Sustainability - Positive	Key ecological processes still influence the site. Under appropriate management, it can remain resilient to existing and potential threats.

Other Management Issues

Habitat Modification - Low	The site is securely fenced with stock excluded, and is subject to legal protection by conservation covenants. There may be impediments to fish passage lower in the stream catchment, solutions to which could be explored.
Herbivores - High	The site is located in the eastern hill country, outside the regional possum self-help area. Vegetation condition, regeneration and re-establishment would benefit by control of browsing pests.
Predators - High	Rodents, mustelids, feral cats and hedgehogs will be present within and around the site. Avifauna and herpetofauna would greatly benefit by routine control of predator species, and species competing for invertebrates, nectar, fruit, seed, buds and leaves.
Weeds - Low	There are numerous exotic species in recently retired/planted pastoral margins and on the forest periphery, although the density of these is currently low. Within the forest area the overall the incidence of pest plants that threaten biodiversity is currently low at the site.



The Moeawatea

At a glance

TRC Reference: BD/9662	LENZ:	F1.3b Not threatened
Ecological District: Matemateaonga	National:	Priority 4 - Threatened Species
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 185	Regional Ecosystem Loss:	Less reduced >50% left
GPS: 1742048X & 5617226Y	Catchment:	Whenuakura (342)

Habitat: Forest Remnant

Bioclimatic Zone: Lowland

Ecosystem Type: MF21: Tawa, kamahi, rimu, northern rata, black beech forest

General Description

The Moeawatea bush block is located approximately 20kms north of Waverley in South Taranaki. The bush block is completely forested and moderately large in area (185 ha). The site is directly connected to large areas of existing native forest in the area including large DOC reserves (Ahoroa Scenic Reserve, Kapara & Rimunui Conservation Area). The site also provides connectivity to other Key Native Ecosystems in this area including the Nukuhau Lakes Catchment and Mt. Hiwi KNE's. The forest area is situated on steep sandstone topography of the Matemateaonga Ecological District and lies within the Whenuakura River catchment.

Ecological Features

Flora

The majority of the forest block is cutover primary forest with a large area of well-established regenerating native forest at the western end. The forest canopies are mixed and varied in places due to the range of habitats and include black beech, tawa, hinau, totara, northern rata, kamahi, miro, rimu, rewarewa, kanuka, manuka and tree ferns. The understory is dominated mainly by unpalatable species such tree ferns, mingimingi and manuka. Notable flora species are present.

Fauna

Notable birdlife recorded includes the 'At Risk' New Zealand falcon, North Island brown kiwi, North Island robin and whitehead. Common native birds in the area include the fantail, tui, bellbird, grey warbler, pied tomtit, New Zealand pigeon and morepork. Other notable native fauna likely to be present include bats, fish, reptiles and invertebrates.

Ecological Values

Ecological Context - Medium	The site is moderately large (185 ha) and connected to existing native habitats in the area. The site provides good connectivity to other Key Native Ecosystems and habitats in this area including the Ahoroa Scenic Reserve, Kapara and Rimunui Conservation Areas, Nukuhau Lakes Catchment and Mt. Hiwi KNE.
Rarity and Distinctiveness - High	Contains a range of notable fauna including the New Zealand falcon, North Island brown kiwi, North Island robin and whitehead and a range of other notable fauna will be present. Also contains notable flora species.
Representativeness - Low	Contains indigenous vegetation on a 'Less Reduced' LENZ environment and is a remnant of an ecosystem type that is still well represented in Taranaki (>50% remaining)

Sustainability - Positive

In good vegetative condition and large in area. 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

Soil geology makes the area potentially more at risk from natural erosion. The forest is recovering well from previous land use in places.

Herbivores - Medium

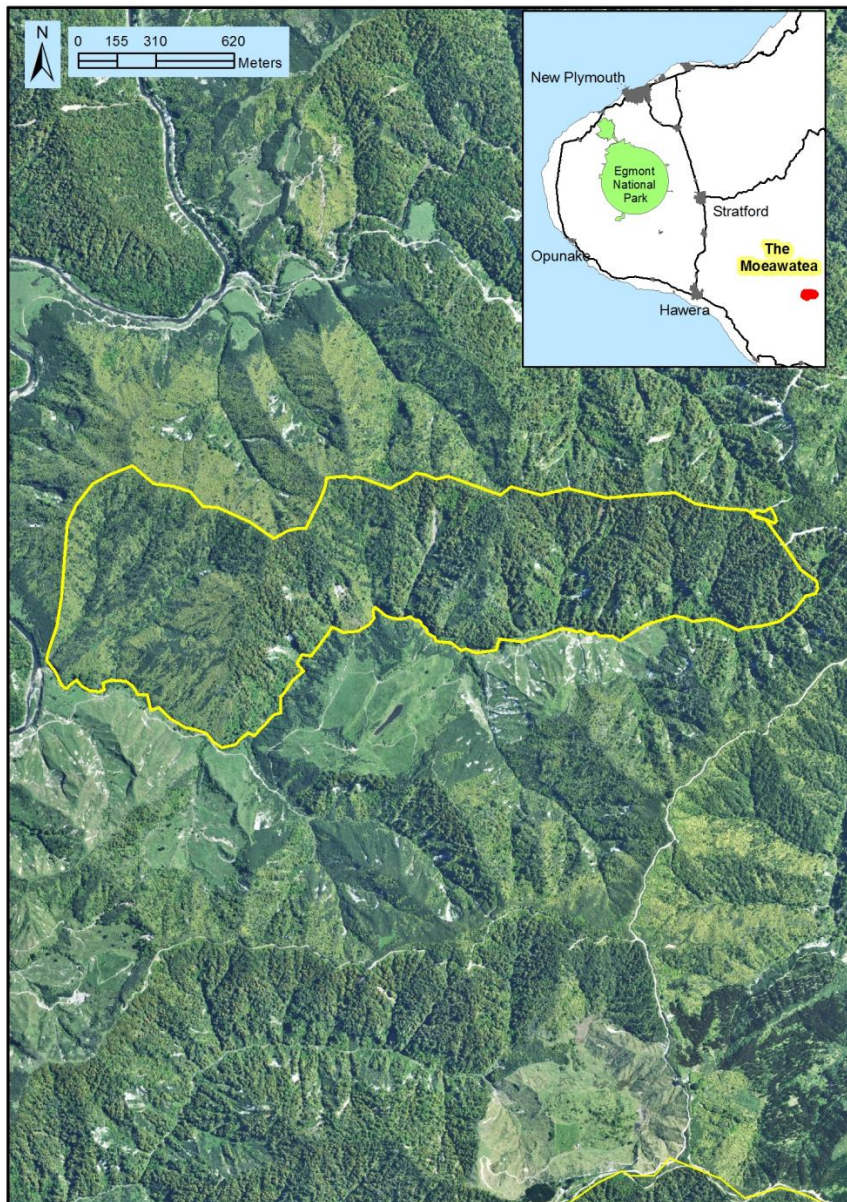
Potential high risk from browsers such as possums, goats and deer in this area on palatable flora species. The current control program will be assisting to reduce browsing pressure at the site.

Predators - High

Potential predator threats are high and include rodents, mustelids, possums, feral cats and hedgehogs. The current predator control program will be greatly reducing predator threat for this site.

Weeds - Low

Currently low impacts of weeds in this area.



McCull East Bush Block

At a glance

TRC Reference: BD/9663	LENZ:	F1.3b Not threatened
Ecological District: Matemateaonga		F1.1c At risk
Land Tenure: Private		F1.3a At risk
Area(ha): 2737	National:	Priority 4 – Threatened Species
GPS: 1735441X & 5614073Y	Regional:	Close proximity to a representative ecosystem site
Habitat: Forest Remnant		Key Native Ecosystem
Bioclimatic Zone: Lowland	Regional Ecosystem Loss:	At risk 20-30% left
Ecosystem Type: MF21: Tawa, kamahi, rimu, northern rata, black beech forest	Catchment:	Patea (343)
MF7.2: Rata, tawa, kamahi, podocarp forest		Whenuakura (342)

General Description

The McCull East Bush Block is located approximately 15kms northeast of Patea in South Taranaki. The bush block is completely forested and large in area (2737 ha). It also has the benefit of being connected to very large area of contiguous native forest including the Rimunui Conservation Area (DOC estate) and other native forest on private land. The forest area is situated on steep sandstone topography of the Matemateaonga Ecological District and lies within the Patea River and Whenuakura River catchments.

Ecological Features

Flora

The forest block contains large areas of well regenerated native forest, large areas of old forest and smaller areas of younger regenerating native forest. The forest canopies are mixed and varied in places due to the range of habitats and include black beech, tawa, hinau, totara, northern rata, kamahi, miro, rimu, rewarewa, maire, kanuka, manuka and tree ferns. The understory is dominated mainly by unpalatable species such as tree ferns, mingimingi and manuka. Notable flora species are present.

Fauna

Notable birdlife recorded includes the 'At Risk' New Zealand falcon, North Island brown kiwi, North Island robin and whitehead. Common native birds in the area include the fantail, tui, bellbird, grey warbler, pied tomtit, New Zealand pigeon and morepork. Other notable native fauna likely to be present include bats, fish, reptiles and invertebrates.

Ecological Values

Ecological context - High	The site is large (2737 ha), connected to existing native habitats in the area and is close to priority ecosystems nearby. The site provides good connectivity to other Key Native Ecosystems and habitats in this area including the Tarere and Rimunui Conservation Areas.
Rarity and Distinctiveness - High	Contains a range of notable fauna including the New Zealand falcon, North Island brown kiwi, North Island robin and whitehead.
Representativeness - Medium	Contains over 30ha of indigenous vegetation on 'At Risk' LENZ environments (F1.1c & F1.3a) and is in close proximity to a priority representative ecosystem site.

Sustainability - Positive

In good vegetative condition and large in area. Key ecological processes still influence the site. Under appropriate management, it can remain resilient to existing or potential threats.

Other Management Issues

Habitat Modification - Medium

Soil geology makes the area potentially more at risk from natural erosion. The forest is recovering from previous land use in places.

Herbivores - High

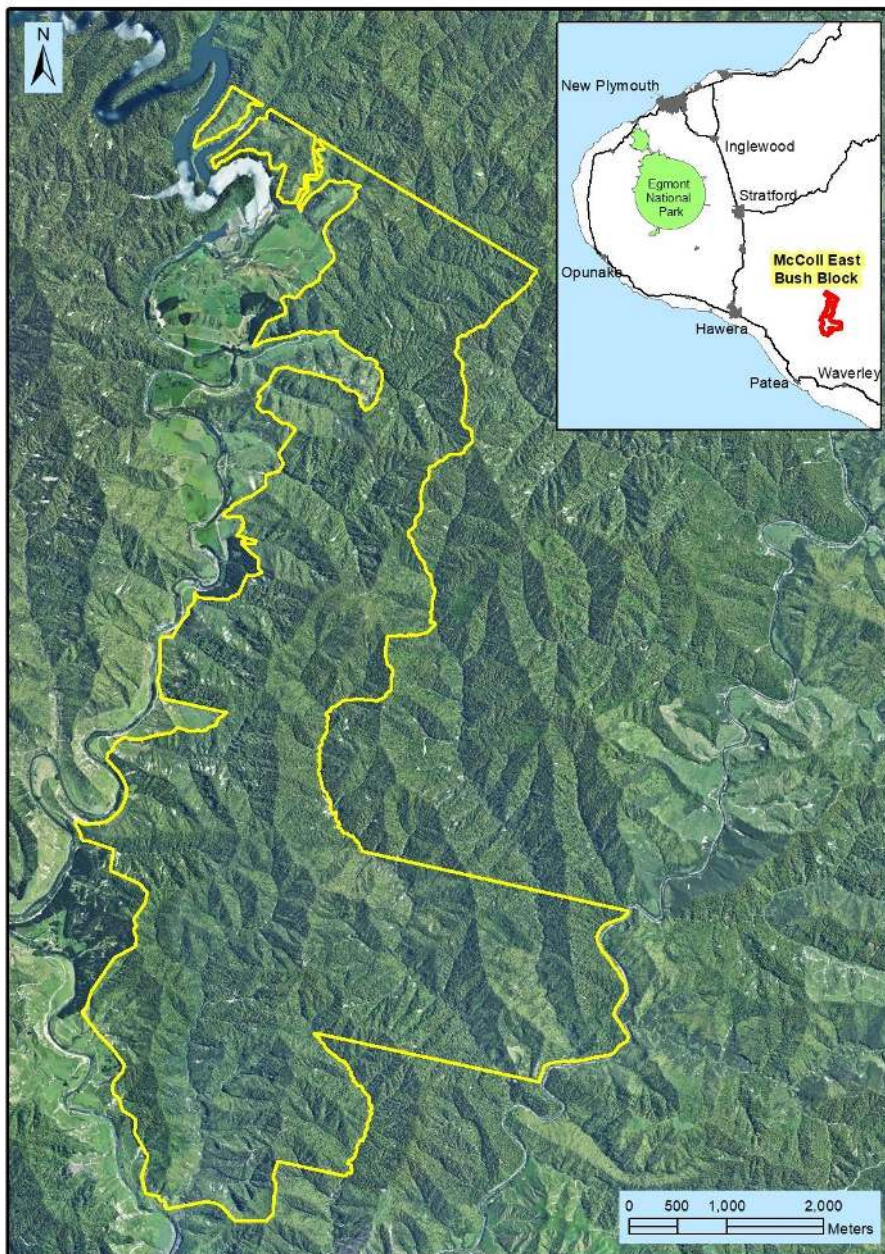
High risk from browsers such as possums, goats and deer in this area on palatable flora species.

Predators - High

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

Weeds - Low

Currently low impacts of weeds in this area.



Allerby's Bush

At a glance

TRC Reference: BD/9670	LENZ:	F5.2a Acutely threatened
Ecological District: Egmont	National:	Priority 1 - Threatened Land Environment
Land Tenure: Private		Priority 4 - Threatened Species
Area(ha): 6.3	Regional:	Key Native Ecosystem
GPS: 1708094X & 5669279Y	Regional Ecosystem Loss:	Chronically threatened 10-20% left
Habitat: Forest Remnant	Catchment:	Waiongana (394)
Bioclimatic Zone: Semi-Coastal		
Ecosystem Type: WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest		

General Description

The Allerby's Bush site is located on privately owned land 5km northeast of Inglewood and lies in the Egmont Ecological District and Waiongana Stream catchment. The site is approximately 6.3ha in size and comprised of a cutover lowland tawa dominant forest remnant on hill slopes and stream terraces. The remnant is of a native forest type that is classified as 'Chronically Threatened' in Taranaki and falls within an 'Acutely Threatened' Land Environment (LENZ) F5.2a. Remnants such as this provide important habitat for rare and threatened species. Allerby's Bush also offers good connectivity to other nearby habitats, covenants and Key Native Ecosystems in the area such as the Everett Park Scenic Reserve KNE.

Ecological Features

Flora

The forest canopy is dominated by tawa with occasional individuals or small stands of miro, pukatea, kohekohe, pigeonwood and rimu (including a few large emergent rimu trees). The understory is dominated by kanono with a mix of other species including kawakawa, pate, pigeonwood, mahoe and tree ferns. Ground cover, climbers and epiphytes are common. Notable flora includes Kirk's tree daisy, kingfern, three species of threatened rata and the 'Regionally Distinctive' tawhirikaro.

Fauna

Birds are generally in moderate to low numbers in the area and include kereru, tui, fantail, grey warbler, silveryeye and morepork. A range of exotic species are also present. Good habitat exists for native reptiles including dense vegetation, epiphytes, loose bark, leaf litter, logs and ground cover. Native notable reptile species may be present such as the goldstripe gecko, forest gecko, striped skink and ornate skink. The habitat will contain a very diverse range of terrestrial invertebrates likely including notable species such as peripatus. A small stream is present which may contain notable native fish species such as kokopu and longfin eels.

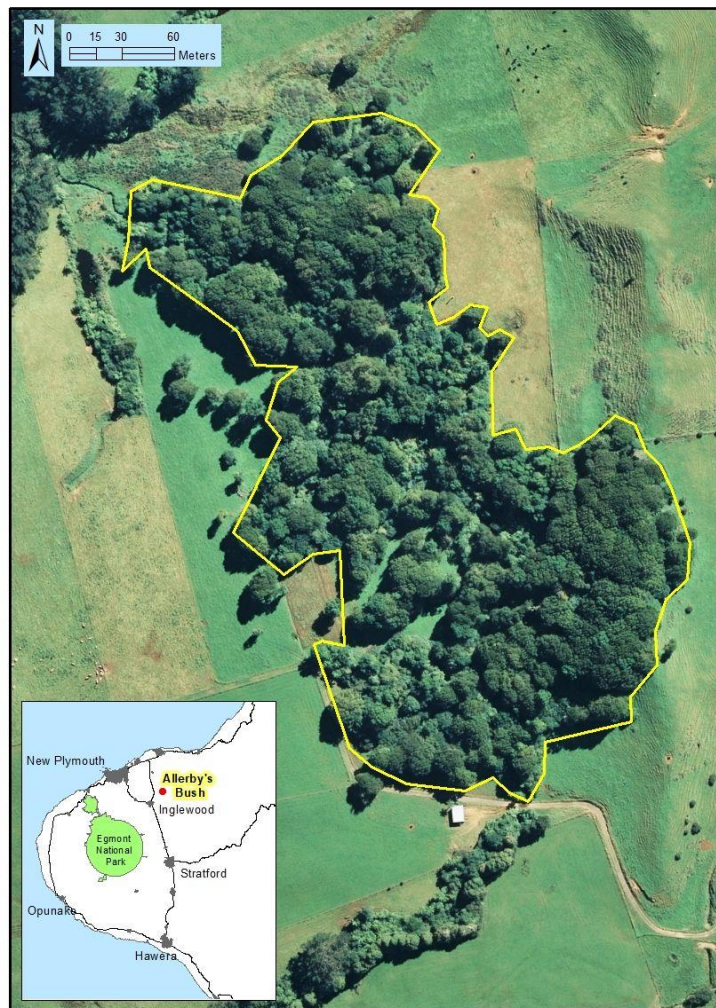
Ecological Values

Ecological Context - Medium	Provides good connectivity to other nearby habitats, covenants and Key Native Ecosystems in the area such as the Everett Park Scenic Reserve KNE.
Rarity and Distinctiveness - High	Contains notable flora including Kirk's tree daisy, kingfern, three species of threatened rata and the 'Regionally Distinctive' tawhirikaro. Likely to contain notable fauna such as reptiles, invertebrates and native fish.

Representativeness - High	The remnant is an example of forest type WF13 (Tawa, kohekohe, rewarewa, hinau, podocarp forest) and is considered 'Chronically Threatened' with only 10 - 20% of this type of forest remaining in the region. The site also falls within the 'Acutely Threatened' Land Environment (LENZ), F5.2a.
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

Habitat Modification - Low	Currently fenced and in good condition Potential risk from stock breach and human modification.
Herbivores - High	Potential high risk from browsing although mostly fenced and stock proof.
Possum Self-help	The property is within the possum self-help area and receives sustained possum control.
Predators - Medium	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Weeds - Medium	Invasive exotic species are present on the forest margins and weeds such as holly, gorse, cherry, tradescantia, barberry and African clubmoss occur in some places within the forest.



Orion's Belt

At a glance

TRC Reference: BD/9684	LENZ:	F1.3b Not threatened
Ecological District: Matemateaonga	National:	Priority 4 - Threatened Species
Land Tenure: Private	Regional:	Key Native Ecosystem
Area(ha): 5.3	Regional Ecosystem Loss:	Less reduced >50% left
GPS: 1761528X & 5597685Y	Protection Status:	QEII Covenant
Habitat: Forest Remnant	Catchment:	Waitotara (339)
Bioclimatic Zone: Lowland		
Ecosystem Type: MF21: Tawa, kamahi, rimu, northern rata, black beech forest		

General Description

The Orion's Belt KNE is made up of two small (5.3ha combined) QEII covenants located on privately owned land, 12kms northeast of Waitotara in south Taranaki. The site is within the Matemateaonga Ecological District and Waitotara River catchment. The forest canopy is mainly cutover lowland forest, dominated by tawa and pukatea with occasional rewarewa, hinau, northern rata and kamahi present. Nationally Threatened and At Risk species such as North Island robin, whitehead and poroporo are notable for the site and other priority species are likely to be present. The site provides connectivity to other nearby KNE's including Mangapuni, Skilton's Bush, Lake Waikato and Lake Waikare.

Ecological Features

Flora

The forest canopy is mainly original cutover lowland forest dominated by tawa and pukatea with occasional rewarewa, hinau, northern rata and kamahi being present. A sub canopy of mahoe and pigeonwood with extensive supplejack and other native climbers, including NZ passionfruit and NZ jasmine, is evident. Tree ferns and ground ferns such as gully fern and crape fern are particularly noticeable near the steep spring gullies. A nationally Threatened species of poroporo is present and is notable for the site. Other notable species may be present.

Fauna

Notable birdlife recorded at this site includes the 'At Risk' North Island robin and whitehead. Common native birds in the area include the fantail, tui, bellbird, grey warbler, pied tomtit and New Zealand pigeon. The 'Threatened' native long-tailed bat and potentially the 'At Risk' North Island brown kiwi are likely to be present and may be confirmed with further survey. Other notable native fauna will also be present including reptiles and invertebrates.

Ecological Values

Ecological Context - Medium	Provides greater connectivity to other KNE's and habitats in this area. Provides core habitat for 'Threatened' and 'At Risk' species.
Rarity and Distinctiveness - High	Contains the 'Threatened' poroporo and 'At Risk' North Island robin and whitehead. Very likely to contain other notable fauna species. Contains five species of rata, manuka and kanuka which have all been elevated to nationally 'At Risk' or 'Threatened' status due to the recent myrtle rust risk.
Representativeness - Low	Contains indigenous vegetation on F1.3b ('Less reduced, better protected') LENZ environment and is an ecosystem type that is still well represented in Taranaki.

Sustainability - Positive

In good vegetative condition and is large enough for key ecological processes to still influence the site. Under appropriate management, it can remain resilient to existing or potential threats.

Other Management Issues

Habitat Modification - Low

Historical logging has modified some aspects of the forest canopy through the removal of large podocarps. Soil geology makes this site potentially more at risk from erosion.

Herbivores - High

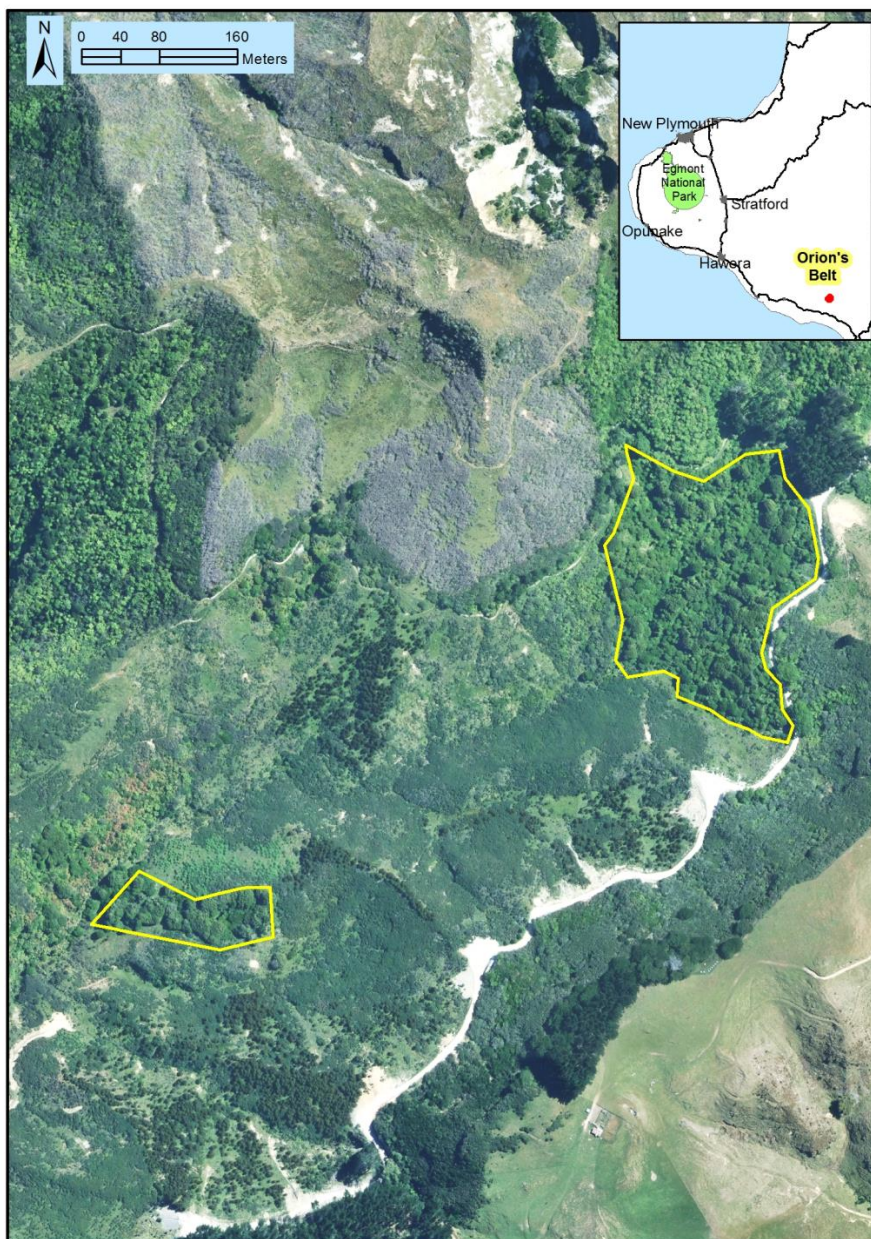
Potential high risk from browsers such as possums, goats and deer in this area.

Predators - Medium

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

Weeds - Low

Currently, weeds threats and impacts are low in this area.



Fern Grove

At a glance

TRC Reference: BD/9688	LENZ:	F5.2a Acutely threatened
Ecological District: North Taranaki		F1.1b Not threatened
Land Tenure: Private	Local:	Significant Natural Area
Area(ha): 20.5	National:	Priority 1 - Threatened Land Environment
GPS: 1720589X & 5681041Y		Priority 2 - Wetlands
		Priority 4 - Threatened Species
Habitat: Forest Remnants and wetland	Regional:	Key Native Ecosystem
Bioclimatic Zone: Semi-Coastal	Regional	Chronically threatened 10-20% left
Ecosystem Type: WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest	Ecosystem Loss:	left
	Protection Status:	QEII Covenant
WF8: Kahikatea, pukatea forest	Catchment:	Onaero (398)

General Description

The Fern Grove KNE is located on private land, approximately 1km south east of Urenui in North Taranaki. It lies in the Onaero River catchment within the North Taranaki Ecological District. The KNE consists of seven small, QEII covenanted, semi-coastal forest remnants and one covenanted wetland that together total 20.5ha. The remnants are examples of native forest types classified as 'Chronically Threatened' in Taranaki and fall within 'Acutely Threatened' Land Environment (LENZ) F5.2a. Remnants such as this provide important habitats for rare and threatened species. Fern Grove also offers good connectivity to other nearby habitats, covenants and Key Native Ecosystems in the area such as the Kaipikari Road Forest Remnants KNE.

Ecological Features

Flora

The remnants are made up of a variety of species typical of semi-coastal forests in this part of Taranaki. Drier slopes and terraces are dominated by tawa, rimu, miro, kohekohe, puriri, pigeonwood and tree ferns whereas the damp valley sites contain more swamp forest species, such as swamp maire, pukatea and kahikatea. Understory species include kanono, kawakawa, pate, pigeonwood, mahoe and tree ferns. Climbers and epiphytes are common. Several notable plant species are present including kingfern, swamp maire and two species of threatened rata. Other notable flora species will be present.

Fauna

Birds are generally in moderate numbers in the area and include kereru, tui, fantail, grey warbler, silvereve and morepork. A range of exotic species are also present. Good habitat exists for native reptiles including dense vegetation, epiphytes, loose bark, leaf litter, logs and ground cover. Native notable reptile species may be present such as the goldstripe gecko, forest gecko, striped skink and ornate skink. The habitat will contain a very diverse range of terrestrial invertebrates likely including notable species such as peripatus. Small streams are present, which contain notable native fish species, such as banded kokopu and longfin eels.

Ecological Values

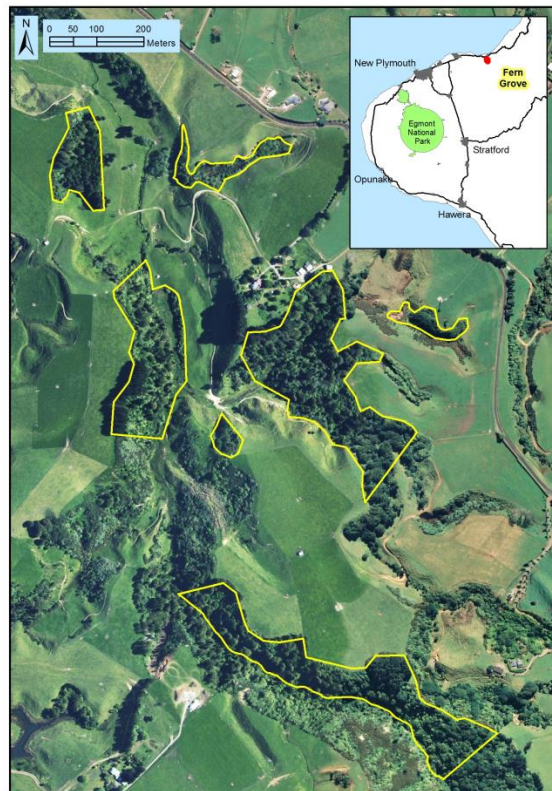
Ecological context - High

A well connected mosaic of habitats that also provide good connectivity to other nearby habitats, covenants and Key Native Ecosystems in the area such as the Kaipikari Road Forest Remnants KNE.

Rarity and Distinctiveness - Medium	Contains notable flora including kingfern, two species of threatened rata and the threatened and 'Regionally Distinctive' swamp maire. Also contains notable fauna such as banded kokopu and longfin eels, and also likely to contain other notable species such as reptiles and invertebrates.
Representativeness - High	The remnants are examples of forest types WF13 (Tawa, kohekohe, rewarewa, hinau, podocarp forest) and WF8 (Kahikatea, pukatea forest). They are considered 'Chronically Threatened' with only 10 - 20% of these types of forests remaining in the region. The site also falls within the 'Acutely Threatened' Land Environment (LENZ), F5.2a.
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

Habitat Modification - Low	Currently fenced and in good condition. Potential risk from stock breach and human modification.
Herbivores - Medium	Potential high risk from stock browsing although mostly fenced and stock proof.
Predators - High	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Weeds - High	Invasive exotic species are present on the forest margins and within the forest such as Tradescantia and woolly nightshade.
Possum Self-help	Outside the possum self-help area, although receives occasional possum control.



Vujcich Piakau Stream Forest

At a glance

TRC Reference: BD/9698	LENZ:	F5.2a Acutely threatened
Ecological District: Egmont	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 4 – Threatened Species
Area(ha): 4.1	Regional:	Key Native Ecosystem
GPS: 1700082X & 5655348Y		Representative ecosystem type
Habitat: Forest Remnant	Regional Ecosystem Loss:	Less reduced >50% left
Bioclimatic Zone: Lowland	Protection Status:	QEII Covenant (Pending)
Ecosystem Type: MF8.2: Rimu, rata, kamahi forest		Local Government
	Catchment:	Waitara (395)

General Description

The Vujcich Piakau Stream Forest is located at the end of Durham Road and is partly connected to Egmont National Park. It consists of approx. 4.1ha of cut over or well regenerated native bush on the margins and wider terraces of the Piakau Stream. The site has been identified as a priority for management as a good example of MF8-2: Rimu, rata, kamahi forest. Native forest remnants are rare on the volcanic ring plain and the area is classified 'Acutely Threatened' (LENZ F5.2a). Notable vegetation includes a number of 'Threatened' species such as swamp maire, and three species of threatened rata. The Piakau stream also provides habitat for notable fauna such as whio, shortjaw kokopu, koaro, redfin bully and longfin eel. The site provides very good connectivity between the Egmont National Park and Vujcich Kamahi Swamp Maire KNE.

Ecological Features

Flora

The dominant canopy of the forest along the Piakau stream is kamahi, with a mix of other species including rimu, miro, tawa, rewarewa, hinau, toro, kahikatea and swamp maire. Lower stature vegetation includes wineberry, marbleleaf, raukawa, hangehange, NZ fuchsia and kanono. Climbers and orchids are common with three species of threatened rata noted. Good ground cover is present including a variety of ferns, seedlings and saplings.

Fauna

Birds found at the site include bellbird, grey warbler, tomtit, fantail, tui and kereru. Whio have also been recorded using the Piakau stream in this area, and are a notable species. 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 reptiles have been recorded for the site although will be present and may include threatened or regionally distinctive species. Notable native fish historically found at the site include shortjaw kokopu, koaro, longfin eels and redfin bullies. Aquatic invertebrate life will be diverse and abundant due to the high water quality of the stream.

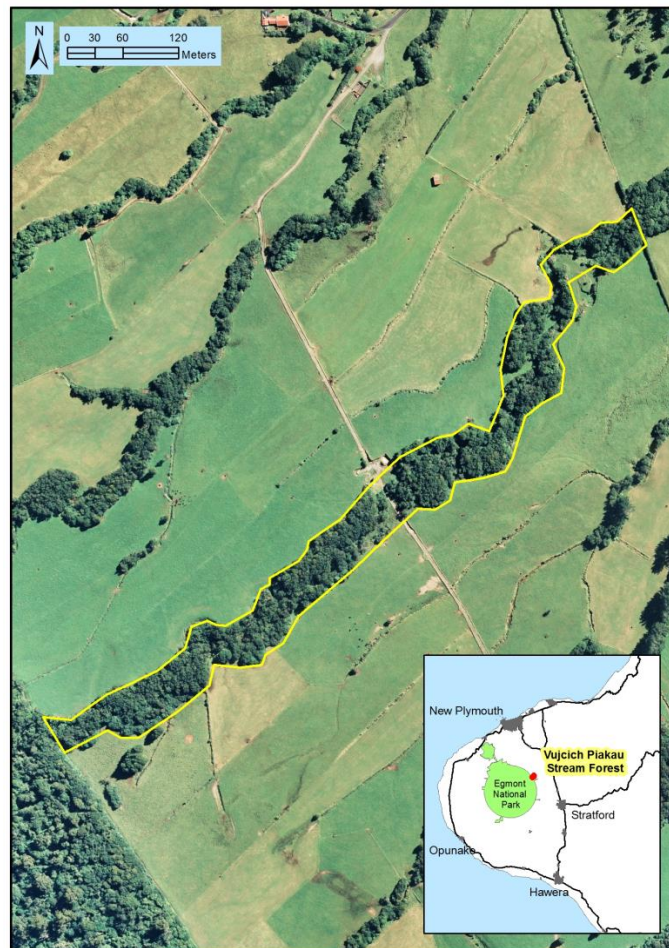
Ecological Values

Ecological context - High	The site provides very good connectivity between Egmont National Park and Vujcich Kamahi Swamp Maire KNE. The site also provides core habitat for a variety of threatened species.
Rarity and Distinctiveness - High	The site provides habitat for a variety of notable threatened species including whio (blue duck), shortjawed kokopu, koaro, swamp maire and three species of threatened rata.

Representativeness - High	Contains vegetation associated with an 'Acutely Threatened' land environment (F5.2a). The remnant is a good example of MF8-2: Rimu, rata, kamahi forest, and has been identified as a priority representative site for management.
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.

Other Management Issues

Habitat Modification - Low	The site is completely fenced and there is little risk of habitat modification.
Herbivores - Medium	Grazing will only be an issue in the event of a fence breach. Goats in the adjacent National Park, have almost been eradicated and are not a threat to this site.
Predator Free signed up: Yes	Part of the Towards Predator Free Taranaki stage two operation. Also has extensive additional predator control nearby, including another KNE area on the property.
Predators - Medium	Mustelids, rats, cats, hedgehogs and possums are present, although extensive ongoing control will be lessening the impact on the native ecosystem.
Weeds - Low	Weed threats are currently low at the site.
Possum Self-help	Within the self-help possum control area and receives sustained possum control. Possums are present at low densities.



Fisher Family Bush

At a glance

TRC Reference: BD/9669	LENZ:	F5.2a Acutely threatened
Ecological District: Egmont		F5.3b Not threatened
Land Tenure: Private	National:	Priority 1 - Threatened Land Environment
Area(ha): 4.5		Priority 2 - Sand Dunes and Wetlands
GPS: 1679940X & 5648313Y	Regional:	Key Native Ecosystem
Habitat: Forest Remnant/Wetland	Regional Ecosystem Loss:	Acutely Threatened <10% left Reduced 30-50% left Less Reduced >50% left
Bioclimatic Zone: Lowland	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 remnants are 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 3 lowland bush remnants cover 4.5ha together and are currently fenced. The forest is in good condition with good understory and ground cover.

Ecological Features

Flora

The forest canopy and understory is in very good condition due to the site being fenced. Few emergent podocarps are present although the main canopy is dominated by a mix of equal sized rimu, kahikatea, miro, tawa, swamp maire, mahoe and pigeonwood and pukatea. The understory is dominated by kanono with a mix of other species present including pate, five finger, pigeonwood, mahoe, NZ fuchsia and tree ferns. Ground cover, climbers and epiphytes are common. The 'Regionally Distinctive' and Nationally Critical swamp maire is notable for the site and other notable flora species may be present.

Fauna

Native fauna observed on the initial visit include kereru, tui, silvereeye, grey warbler, Australasian harrier and fantail. Other native birds will also be present or use the forest in their foraging area including morepork and bellbird. A rather wet forest floor in Block 1 may provide suitable habitat for the 'At Risk' brown mudfish, and blocks 2 and 3 are bordered by the Pungaereere Stream, providing excellent habitat for other freshwater fish species. There is very good habitat for native reptiles and notable species may be present.

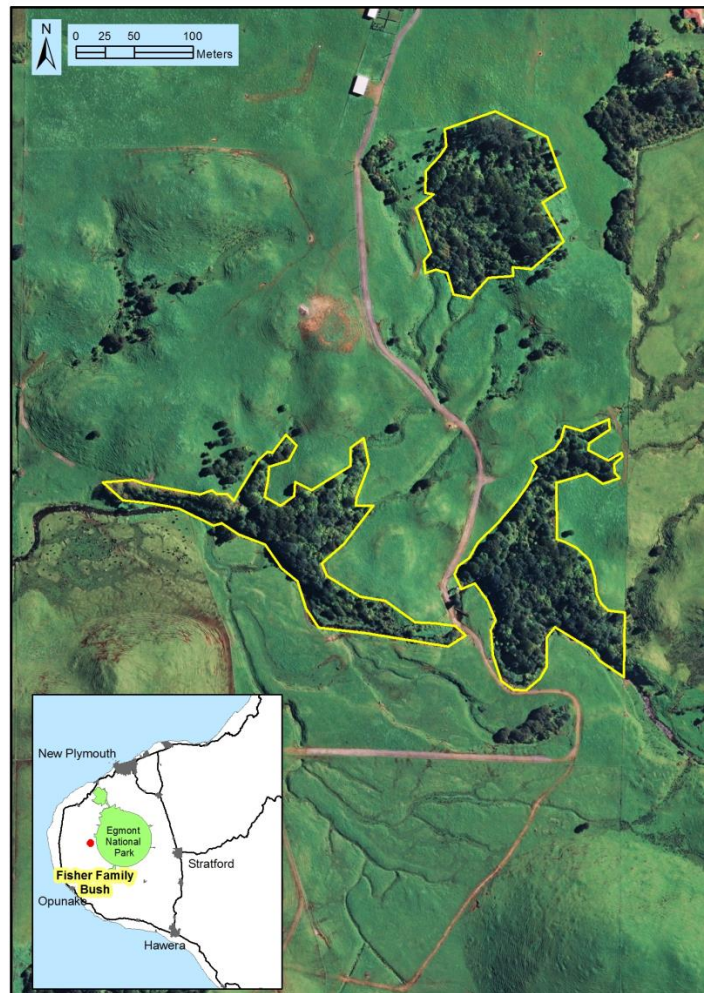
Ecological Values

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 and the original Fisher Family bush.
Representativeness - High	Contains vegetation on 'Acutely Threatened' (F5.2a) and 'Not Threatened' (F5.3b) land environments. Is a remnant of ecosystems considered 'Less Reduced' (MF7-2) and 'Reduced' (MF8-3) from their pre-European extent in Taranaki.

Rarity and Distinctiveness - Medium	Recent myrtle rust threats have elevated potentially vulnerable native flora species to 'Threatened' status. Notably, five of these new threatened species are present at this site including swamp maire, kanuka and three species of climbing rata. Provides habitat for and likely to contain other notable species including notable native fish and reptiles.
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.
Possum Self-help	Within the possum self-help 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. The site falls within the TPFT Programme.
Weeds - Low	Weed species observed include African clubmoss and blackberry near the edges.
Herbivores - Medium	Potential threat from cattle, only if fences were breached.



Waha o Tāne (Bird Chorus)

At a glance

TRC Reference: BD/9671	LENZ:	F5.2b Acutely threatened
Ecological District: Egmont	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 4 – Threatened Species
Area(ha): 1.2	Regional:	Key Native Ecosystem
GPS: 1689595X & 5670859Y	Regional Ecosystem Loss:	Chronically threatened 10-20% left
Habitat: Forest Remnant	Protection Status:	QEII Covenant
Bioclimatic Zone: Semi-Coastal	Catchment:	Huatoki (389)
Ecosystem Type: WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest		

General Description

Egarr's forest remnant is comprised of semi-coastal bush located along an unnamed tributary of the Mangaotuku Stream between Barrett and Cowling Roads in the Huatoki Catchment. The ecosystem type is classified as WF13, Tawa, kohekohe, rewarewa, hinau, podocarp forest. Although historically cutover, the remnant is a good example of this type of forest, with a reasonable canopy cover and regenerating undergrowth. The site provides good connectivity to other Key Native Ecosystems in the area including Ratapihipihi Scenic Reserve, Upper Mangaotuku KNE, Atkinson's Bush, Berridge Twin Bush, Ian and Jean Kurth KNE, Omata Bush and Omata School Bush.

Ecological Features

Flora

The main canopy of the remnants is dominated by pukatea, kahikatea, tawa, kohekohe, puriri and rewarewa. The lower canopy is dominated by mahoe, pigeonwood and tree ferns. A good mix of seedlings and saplings are present including kawakawa, mapou, pate and kanono. A variety of native ferns are also present in the groundcover. The site contains a good representation of semi coastal forest (classified as a 'Chronically Threatened indigenous vegetation type with less than 20% of original vegetation remaining).

Native biodiversity in these environments is greatly depleted and under threat from continued habitat fragmentation.

Fauna

Native birds such as tui, kereru, fantail, grey warbler, morepork and long tailed cuckoo are present. Good habitat exists for native reptiles including epiphytes, loose bark, abundant foliage, leaf litter and forest ground cover. The small stream may be suitable for the regionally distinctive banded kokopu or other native fish species, although impediments to fish passage lower in the catchment may impact this.

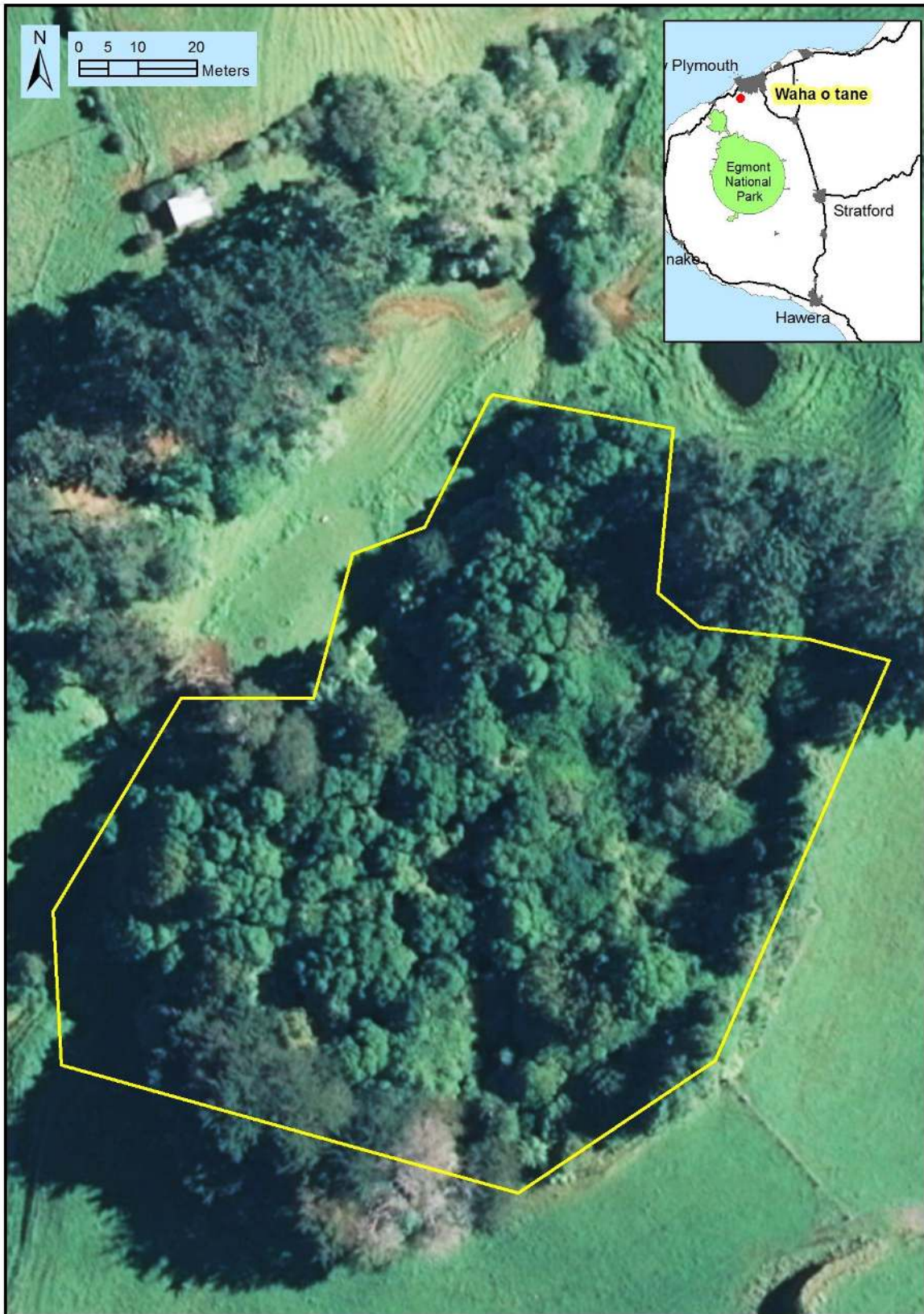
Ecological Values

Representativeness - High	The ecosystem type is WF13, Tawa, kohekohe, rewarewa, hinau, podocarp forest which is classified as 'Chronically threatened'. There is approximately 16% of this type of ecosystem left in the Taranaki region.
Sustainability - Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.
Rarity and Distinctiveness - Low	Recent myrtle rust threats have elevated potentially vulnerable native flora species to 'Threatened' status. Notably, two of these species (white rata,

Ecological context - High	<p>and climbing rata) are present. Good habitat exists for terrestrial and arboreal reptile species at this site and notable species are likely to be present.</p> <p>The sites provide good connectivity to other Key Native Ecosystems in the area including Ratapihipihi Scenic Reserve, Berridge Twin Bush, Omata Bush, Omata School Bush, Atkinson's Bush, Ian and Jean Kurth KNE and Upper Mangaotuku KNE.</p>
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Other Management Issues

Herbivores - High	At present, stock have access to the site through the northern boundary. Herbivores pose a high risk to the site at present, through trampling and browsing of native flora species.
Possum Self-help	The site falls within the Self Help Possum area. Pestoff is currently being used.
Predators - High	Possum numbers are high, as indicated by abundant fresh sign. Cats, mustelids, hedgehogs and rats will also be having an impact on the site.
Weeds - Medium	A number of weed species were observed at the site in low numbers, except for climbing asparagus, which was found around the entire perimeter, and within the site.
Habitat Modification - Medium	A small spring fed stream is drained around the NE edge of the remnant. This may affect the regeneration of kahikatea and pukatea within the remnant in the future.



Watatao

At a glance

TRC Reference: BD/9682	LENZ:	F5.2b Acutely threatened
Ecological District: Egmont	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 4 – Threatened Species
Area(ha): 2.4	Regional:	Key Native Ecosystem
GPS: 1687769X & 5667924Y	Regional Ecosystem Loss:	Chronically Threatened < 20% left
Habitat: Forest Remnant		
Bioclimatic Zone: Semi-Coastal		
Ecosystem Type: WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest		

General Description

Watatao potential KNE is located on privately owned land on Hurford road, 4km south of Omata. The site lies in the Egmont Ecological District and Tapuae Stream catchment. Watatao consists of a 2.4ha semi-coastal kohekohe, tawa forest remnant and is in close proximity to several existing KNEs; McNeil KNE, Woodside and Berridge Twin Bush, Ralph Arnold KNE and Atkinson's Bush.

Ecological Features

Flora

The covenanted area contains a good representation of semi coastal forest (classified as a 'Chronically Threatened indigenous vegetation type with less than 20% of original vegetation remaining). Native biodiversity in these environments has been severely reduced, and remaining habitats are sparsely distributed in the landscape. Risks to biodiversity from fragmentation have become severe, and the persistence of many species is threatened in these environments. The forest canopy predominantly consists of tawa, pukatea and kohekohe. Due to heavy stock browsing, the understory and groundcover are sparse, however recent stock exclusion has allowed coprosmas and ferns to regenerate. Climbers and epiphytes are present in canopy, and where stock have been excluded for longer.

Fauna

Native birdlife recorded in and around the covenanted area include kereru, grey warbler, fantail, tui and kingfisher. Morepork are likely to be present. Good habitat exists for terrestrial and arboreal reptile species at this site and notable species are likely to be present. However, numbers are likely to be low due to predation from introduced mammals. Spring heads which feed an unnamed tributary of the Tapuae stream begin in the site, and may contain notable freshwater species.

Ecological Values

Rarity and Distinctiveness - Medium	Contains several threatened and at risk plant species including scarlet rata and climbing rata. Good habitat exists for terrestrial and arboreal reptile species at this site and notable species are likely to be present.
Representativeness - High	Contains indigenous vegetation classified as 'Chronically Threatened' with <20% remaining.
Ecological context - High	Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the adjacent covenants; Ralph Arnold KNE, Ms & FA Morris Reserve and Atkinson's Bush.

Sustainability - Positive

Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The landowners are already taking steps to manage the site positively, and have initiated the formal protection process with the QEII Trust.

Other Management Issues

Habitat Modification - Medium

Further habitat loss to forest types like this will disproportionately exacerbate risks to biodiversity, however there are no immediate threats at this site.

Herbivores - Low

Up until recently, stock have roamed freely under the forest canopy. The site is now fenced and stock proof. Currently under good possum control although vulnerable if possum numbers were high.

Possum Self-help

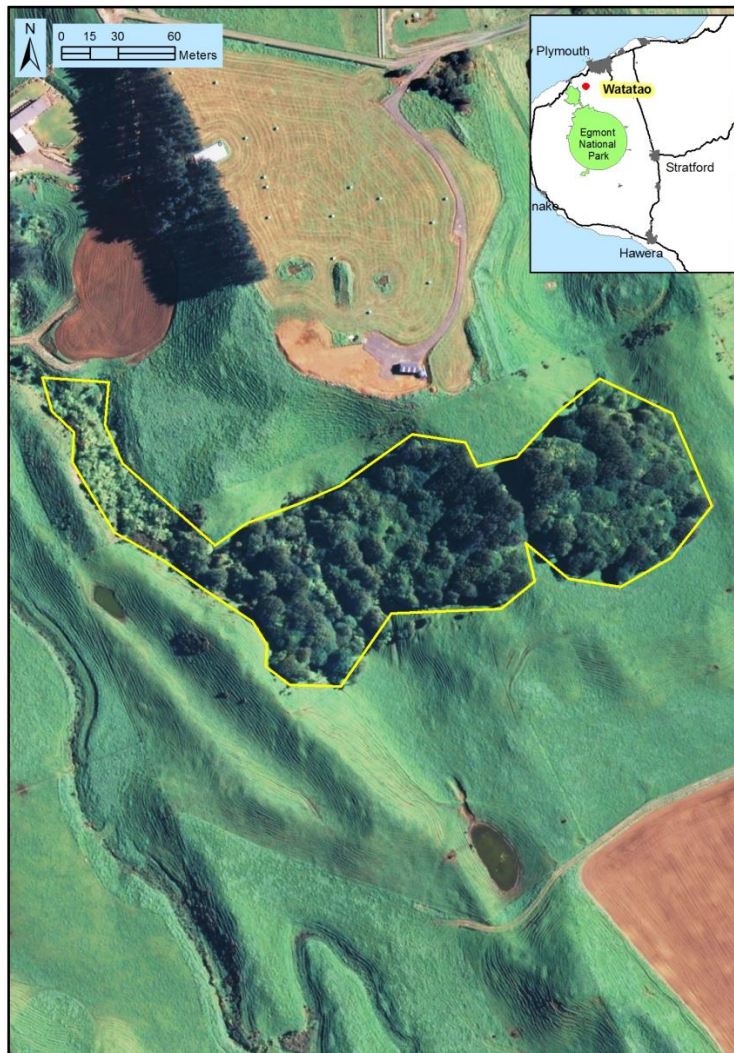
The site falls within the Hurford Self-Help area.

Predators - Medium

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

Weeds - Medium

Small areas of African clubmoss, Himalayan honeysuckle, Japanese honeysuckle and blackberry. Larger patches of gorse, which are under management.



Te Kahu (PKW Farms, Ohangai)

At a glance

TRC Reference: BD/9689	LENZ:	F5.2c Acutely threatened
Ecological District: Manawatu Plains	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 2 – Sand Dunes and Wetlands
Area(ha): 5.1		Priority 4 – Threatened Species
GPS: 1718870X & 5617493Y	Regional:	Key Native Ecosystem
Habitat: Forest Remnant/Wetland		Regionally Significant Wetland
Bioclimatic Zone: Lowland	Regional	At risk 20-30% left
Ecosystem Type: MF7.3: Tawa, pukatea, podocarp forest	Ecosystem Loss:	
	Protection Status:	Local Government
	Catchment:	Tangahoe (348)

General Description

Te Kahu forest remnant is located on private land 8 kilometres east of Hawera off the Ohangai Road in South Taranaki. The remnant lies within the Manawatu Plains Ecological District and Tangahoe River catchment. The 5.1 hectare forest remnant is located in a steep South and East facing gully and gully sidelings, in an unnamed tributary of the Tangahoe River. The forested parts of the remnant consist of a mix of older cut over semi coastal / lowland forest with a dominant canopy of tawa, along with pukatea wetland forest on the gully floor. Down stream of the wetland forest, in more open areas, are raupo wetlands with cutty grass on better drained margins. Te Kahu forest remnant enhances connectivity between fragmented indigenous habitats in this area including the nearby Cotebrook Forest and Punarima Forest and Wetlands KNE.

Ecological Features

Flora

The remnant consists of a mix of older cut over semi coastal / lowland forest with a dominant canopy of tawa, pukatea and karaka. The younger lower canopy is dominated by mahoe, pigeonwood, mapou and tree ferns. The ground cover is intact and is dominated by native ferns and large areas of parataniwha on the wet areas of the slopes and valley floor. Modified wetlands, now dominated by raupo and coastal cutty grass, are present downstream of the forested area. Notable species for the site include two species of threatened rata and the Regionally Distinctive Ngaio.

Fauna

Native birds present include kereru, tui, bellbird, silvereye, rioriro, piwakawaka, kotare, kahu and ruru. 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	Part of a basic network of linear gully vegetation/habitat in the area
Sustainability - Positive	Mostly fenced to exclude stock but some areas of regenerating forest remain unfenced. Owners proven environmental performers and are kaitiaki of the land
Representativeness - High	This is an 'Acutely Threatened' land environment (LENZ) and 'At Risk' ecosystem type (Leathwick)

Rarity and Distinctiveness -
Medium

A number of ngaio trees are present, which are classified as being 'Regionally Distinctive' owing to their scarcity in the region. Scarlet and white rata are also present, which are classified as being 'Nationally Vulnerable' owing to risks posed to myrtaceous species by the recent incursion of myrtle rust to New Zealand.

Other Management Issues

Habitat Modification - Medium

The site has some un-fenced regenerating forest, that has been impacted upon over time by grazing and treading damage. Existing fencing is moderate to good.

Herbivores - High

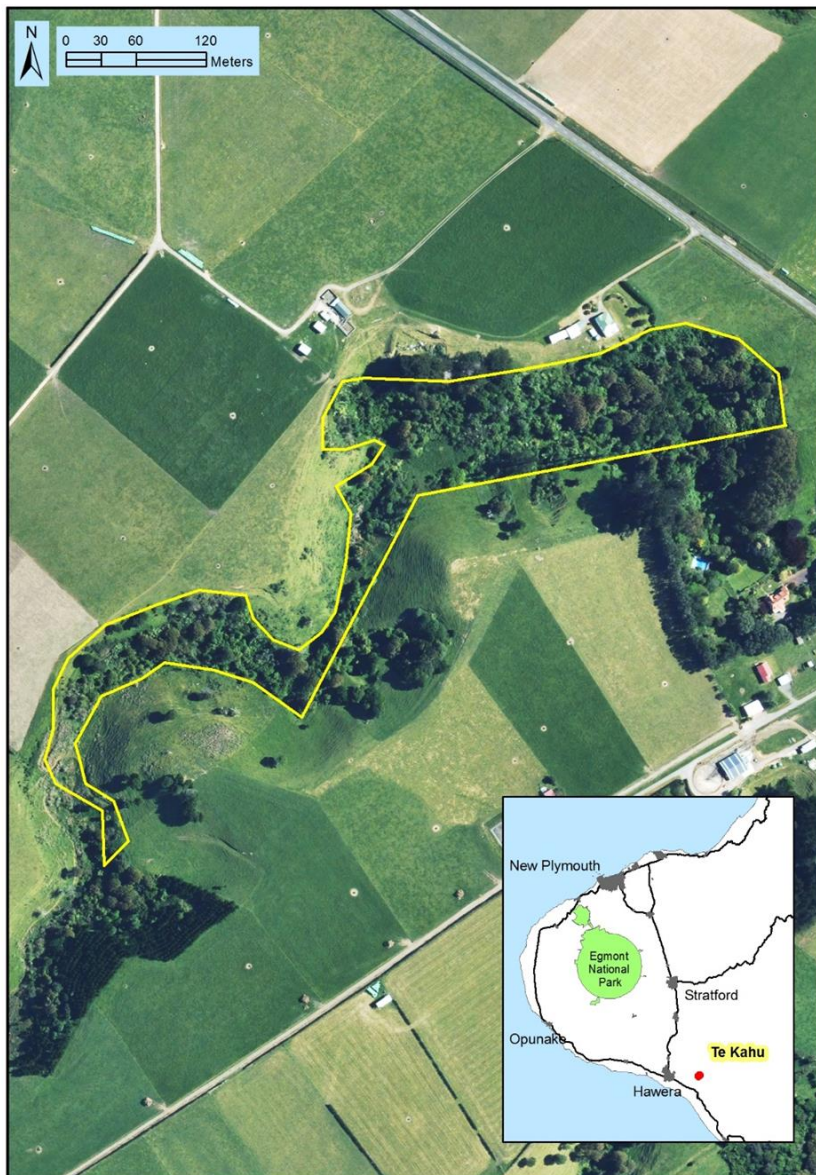
Outside regional Possum Self Help programme area

Predators - High

No rodent, mustelid or feral cat control at time of original CA

Weeds - High

Abundant vine and ground cover weeds. Some wilding tree weeds



Inaha stream (PKW Farm 7)

At a glance

TRC Reference: BD/9685	LENZ:	F5.2c Acutely threatened
Ecological District: Egmont	National:	Priority 1 - Threatened Land Environment
Land Tenure: Private		Priority 4 - Threatened Species
Area(ha): 3.1	Regional:	Key Native Ecosystem
GPS: 1703479X & 5625995Y	Regional Ecosystem Loss:	At risk 20-30% left
Habitat: Forest Remnant	Protection Status:	Local Government
Bioclimatic Zone: Semi-Coastal	Catchment:	Inaha (351)
Ecosystem Type: MF7.3: Tawa, pukatea, podocarp forest		

General Description

The PKW Farm 7 Inaha stream KNE is a 3.1 ha privately owned forest remnant, on the banks of the Inaha stream. It is located approximately 6kms north west of Normanby, in the Egmont Ecological District. The remnant provides some connectivity to other habitats in the vicinity with good riparian links along the stream margin. Forest remnants such as this, are now very rare in this area.

Ecological Features

Flora

The site is a good example of tawa, pukatea podocarp forest. Less than 30% of this type of forest remains in Taranaki. The forest canopy consists of tawa, titoki, kahikatea, hinau and Northern rata. A good mix of other plant species are present in the sub canopy including karaka, rewarewa, kowhai, ti kouka/cabbage tree, makomako/wineberry, mahoe, mamaku and poporokaiwhiri/pigeonwood. The understorey is in good condition, following the exclusion of stock, and includes kawakawa, kanono, karamu, wheki, ponga, mapou, poroporo and abundant ground ferns. Climbing vines and epiphytes present at the site include kiekie, kareao/supplejack, two species of rata, kohia, puka and kakaha.

Fauna

Native birdlife recorded in and around the site include the riroriro, kereru, kotare, piwaiwaka, kahu, tauhou and pukeko. Freshwater species from past surveys in the area include kakahi, tuna (long & short fin eel), freshwater koura, redfin bully and galaxid species.

Ecological Values

Rarity and Distinctiveness - High	The recent discovery of myrtle rust in New Zealand has led to all myrtle species being listed as Threatened or AT Risk. The site has two rata species, both of which are from the plant family Myrtaceae. Also contains the 'Regionally Distinctive' jointed fern.
Representativeness - High	The habitat has been identified as MF7-3: Tawa, pukatea, podocarp forest and the area is classified as an 'Acutely Threatened' land environment (F5.2c). Native vegetation in these areas is rare and important for species threatened by habitat loss.
Ecological Context - Low	Provides habitat for native species in an area of well-developed farmland and provides good connectivity with other Key Native Ecosystems in the wider area such as the McDonalds Glen and Team Tong Tiger KNE.

Sustainability - Positive

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

Other Management Issues

Habitat Modification - Medium

Currently well fenced.

Weeds - High

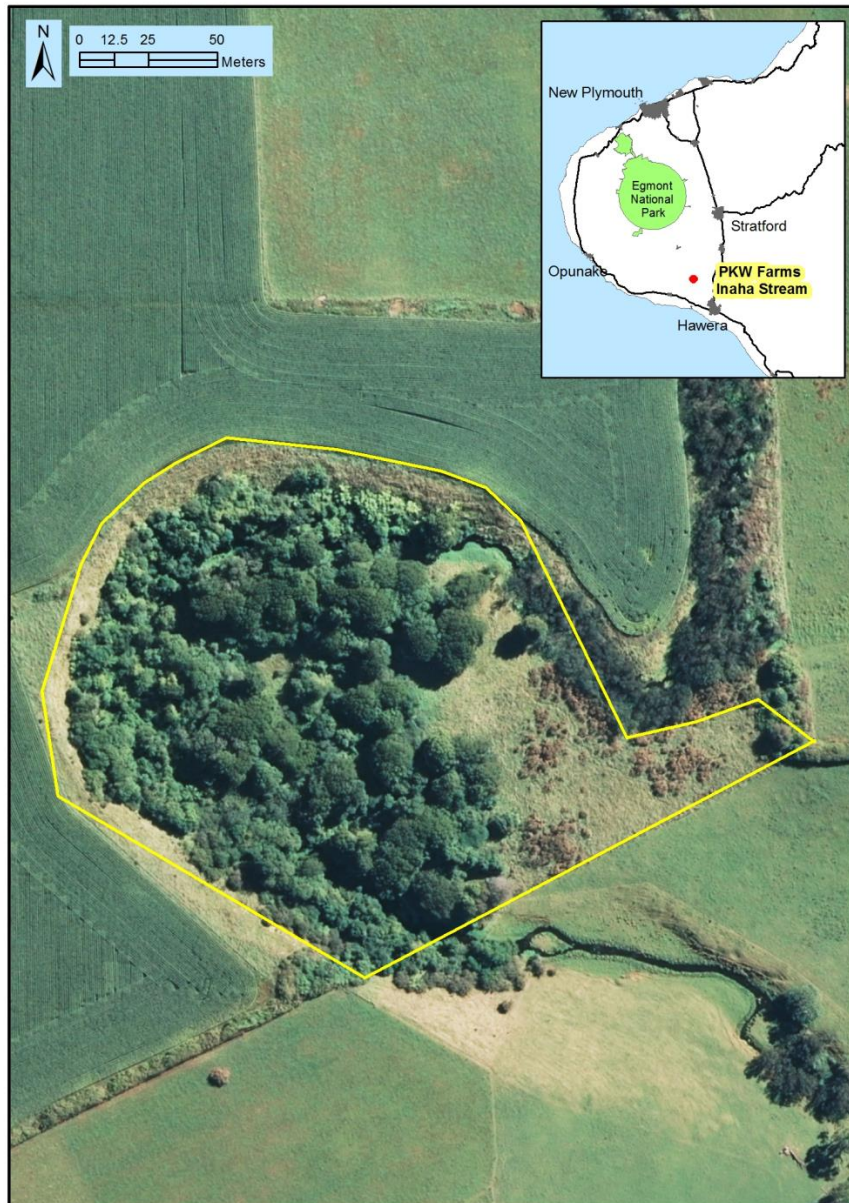
Moderate areas of old man's beard and gorse. Occasional areas of blackberry, pampas, willow and Tradescantia.

Possum Self-help

Property lies within Self Help possum control boundary.

Predators - High

Possums, cats, mustelids, hedgehogs and rodents.



Green School

At a glance

TRC Reference: BD/9673	LENZ:	F5.2b Acutely threatened
Ecological District: Egmont	Local:	Significant Natural Area
Land Tenure: Private	National:	Priority 4 – Threatened Species
Area(ha): 4.2		Priority 1 – Threatened Land Environment
GPS: 1685766X & 5668302Y	Regional:	Key Native Ecosystem
Habitat: Coastal/Forest Remnant	Regional Ecosystem Loss:	Chronically threatened 10-20% left
Bioclimatic Zone: Semi-Coastal	Protection Status:	Local Government
Ecosystem Type: WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest	Catchment:	Oakura (385) Tapuae (386)

General Description

Green School KNE is made up of eight small remnants of semi coastal forest totalling 4.2ha and is located 3.4km from Oakura township, in North Taranaki. The site lies in both the Oakura and Tapuae catchments and falls within the Egmont Ecological District. Though the site has no formal protection under a covenant, it is listed as a Significant Natural Area under the New Plymouth District Council's District Plan. The remnants are in close proximity and provide connectivity to several other Key Native Ecosystems in the area, including Egmont National Park, Te Koru Pa, Rewarewa Bush, Pukiekie and McNeils.

Ecological Features

Flora

The remnants are predominately semi-coastal tawa/kohekohe/rewarewa forest. Remnants like these are greatly reduced in Taranaki with less than 20% of this type of forest now remaining in the region. Other canopy trees include titoki, pukatea, black maire, white maire, kahikatea and puriri. A number of other plant species are also present in the sub canopy including karaka, mapou, mamaku, kawakawa, pigeonwood, various coprosmas, silver fern/ponga and mahoe. Climbing species include NZ jasmine, kohia, kiekie, supple jack and three species of threatened rata. The site also contains the Regionally Distinctive tawhirikaro, ngaio and green mistletoe.

Fauna

Native birdlife recorded in and around the site include kereru, tui, grey warbler, fantail, silvereye and sacred kingfisher. Good habitat exists for reptiles which may include notable species. Fish life in the Oakura river includes notable species such as giant kokopu, koaro, longfin eels and shortjaw kokopu. Other aquatic life includes the shortfin eel, freshwater crayfish and the introduced brown trout.

Ecological Values

Ecological Context - Medium	Provides habitat and important linkages along the Oakura river and tributary to the Tapuae stream. The remnants are in close proximity to several other Key Native Ecosystems in the area, including Rewarewa, Pukiekie, Tapuae wetland, McNeil's and Egmont National Park.
Representativeness - High	Contains vegetation on a land environment classified as 'Acutely Threatened' (F5.2b) and is a remnant of a forest type that is chronically threatened in Taranaki.
Rarity and Distinctiveness - High	Provides habitat for notable plant species, including three species of climbing rata (recently listed as threatened due to threats posed

Sustainability - Positive

by Myrtle rust), and the regionally distinctive green mistletoe, ngaio and tawhirikaro. Threatened shortjaw kokopu and the At Risk longfin eel, giant kokopu and koaro are also present in the nearby Oakura river.

Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. Green School will be carrying out extensive native revegetation linking existing remnants on the property. Green School's vision for the site is to provide a hub for environmental education to the wider community.

Other Management Issues

Possum Self-help

Lies in the possum self-help area of Hurford.

Predator Control

Green school is currently carrying out predator control as part of the Towards Predator free programme and their own trapping network.

Weeds - High

There are weed issues at the various sites, including localised Kahili ginger wandering willy and African clubmoss/Selaginella.

Herbivores - Low

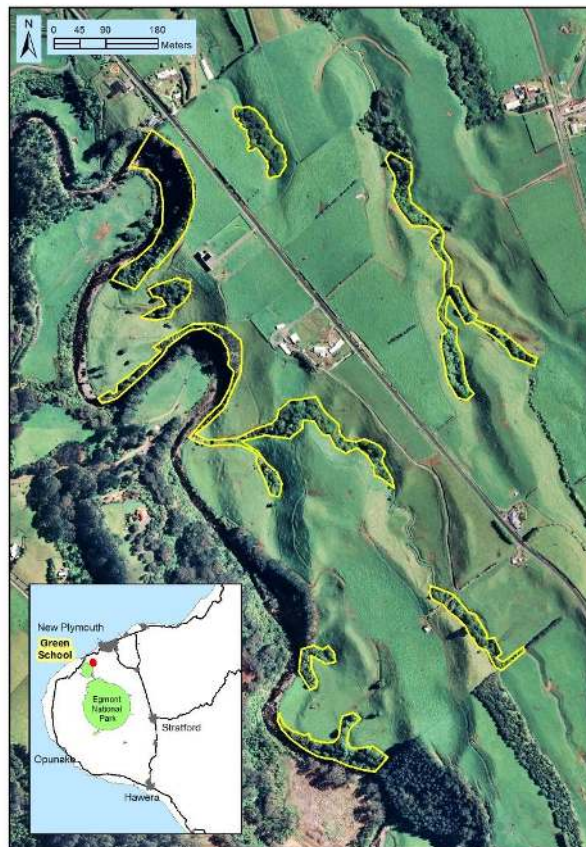
Apart from possums and a low risk of incursion by adjacent stock, there are no other herbivores in the area.

Predators - High

Possums, cats, rats, hedgehogs and mustelids.

Habitat Modification - Low

The remnant is adequately fenced to prevent stock incursion and it has not had stock present in the bush remnants for some time given seedling and young plant presence.



Cornwall Park Bush Remnants

At a glance

TRC Reference: BD/9665	LENZ:	F5.2a Acutely threatened
Ecological District: Egmont	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 4 – Threatened Species
Area(ha): 10.3	Regional:	Key Native Ecosystem
GPS: 1709812X & 5637057Y	Regional Ecosystem Loss:	At risk 20-30% left
Habitat: Forest Remnant	Protection Status:	QEII Covenant
Bioclimatic Zone: Lowland	Catchment:	Waingongoro (350)
Ecosystem Type: MF7.3: Tawa, pukatea, podocarp forest		

General Description

The Cornwall Park Bush Remnants are located on privately owned land, approximately 3km North West of Eltham Township. The site is comprised of three forest remnants totalling 10.3ha (8.5 ha, 1ha and 0.8ha) and lies in the Waingongoro River catchment within the Egmont Ecological District. The forest historically was cutover, with the canopy now made up of mature tawa and emergent rewarewa. The understory is regenerating well where stock has been excluded, and is dominated by pigeonwood and mahoe. Two of the remnants are connected to riparian margins and provide important habitat in an agriculture dominated landscape.

Ecological Features

Flora

The forest canopy is dominated by tawa and rewarewa. The understory is predominantly made up of pigeonwood and mahoe. Ground cover is mainly sparse through the grazed section, but is flourishing where stock cannot access, with a variety of seedlings and saplings. A mix of ferns, climbers and epiphytes are also fairly common. Recent myrtle rust threats have elevated potentially vulnerable native flora species to 'Threatened' status. Notably, three of these new threatened species are present at this site and include three species of climbing rata. A 'Threatened' species of poroporo is also present at the site.

Fauna

Native birds recorded at this site include kereru, tui, silvereye, grey warbler, fantail, kingfisher and harrier. Morepork are also likely to be present. Notably, the At Risk NZ pipit was also recorded at the site. Good habitat exists for a range of other notable native species including reptiles and invertebrates.

Ecological Values

Sustainability - Positive	The two smaller remnants and a portion of the larger remnant, which are stockproof, are in good vegetative condition and regenerating well with prolific seedlings and saplings present. The other section which is occasionally grazed by drystock would improve dramatically if stock were fully excluded.
Representativeness - Medium	Contains vegetation on an 'Acutely Threatened' (F5.2a) land environment. Is a remnant of an ecosystem considered 'At Risk' (MF7.3: Tawa Pukatea, podocarp forest) from its pre-european extent. Only 20-30% of this native forest ecosystem type remains in Taranaki. Native biodiversity in these environments has been much reduced, and habitats are seriously fragmented. Therefore the future

persistence of species dependent on habitats in these environments is already compromised. Further habitat loss will exacerbate threats and decrease the security of biodiversity associated with these environments.

Rarity and Distinctiveness - Medium

Provides habitat for and also likely to contain other notable fauna species including reptiles and invertebrates. Also contains three rata species which are newly listed as 'Threatened' flora due to potential vulnerability to myrtle rust. The 'Threatened' Poroporo is also present.

Ecological Context - Low

Extensive fenced riparian strips (both natural and planted) and shelterbelts are present in the area, but substantial mature forest is scarce. Protection and enhancement of this remnant would be valuable to increase native biodiversity in the area.

Other Management Issues

Habitat Modification - Medium

Other than the grazing of stock, there are no additional threats to the site.

Herbivores - Medium

Drystock currently have access to a section of the site and will be having an impact on regeneration of forest species.

Possum Self-help

The property falls within the Mountain Road Possum Self Help Area. Trapping and poisoning methods are used.

Predators - Medium

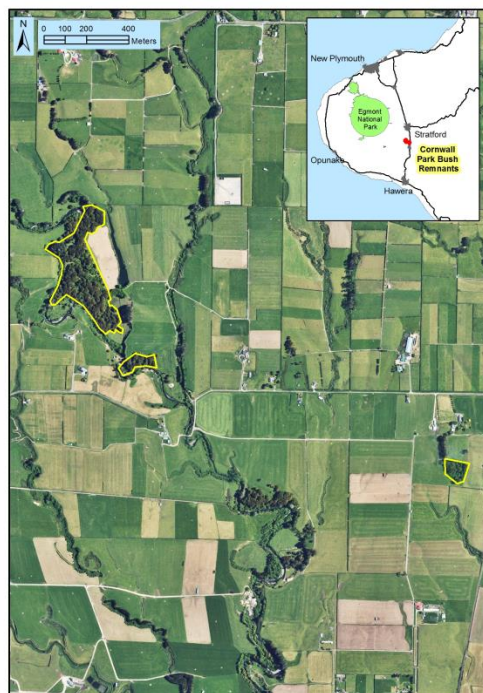
Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.

Weed Control

Ongoing control of Old Man's Beard has been undertaken by the TRC on site as part of the Direct Control Project along the Waingongoro Stream.

Weeds - High

Weeds, particularly Old Man's Beard, are a current threat to the site. Other weed species including wandering willy, Himalayan honeysuckle and Japanese honeysuckle are also present.



McKenzie Wetland

At a glance

TRC Reference: BD/9681	LENZ:	F5.2c Acutely threatened
Ecological District: Manawatu Plains	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 2 – Sand Dunes and Wetlands
Area(ha): 4.07		Priority 4 – Threatened Species
GPS: 1736355X & 5604770Y	Regional:	Representative ecosystem type
Habitat: Wetland		Key Native Ecosystem
Bioclimatic Zone: Lowland		Regionally Significant Wetland
Ecosystem Type: WL12: Manuka, tanglefern scrub/fermland	Regional Ecosystem Loss:	Acutely Threatened <10% left
WL13: Sphagnum moss field	Protection Status:	Local Government
	Catchment:	Whenuakura (342)

General Description

The McKenzie Wetland (bog) is located on privately owned land, 7.5km northwest of Waverley. The site lies in a slump terrain basin of the Manawatu Plains Ecological District and Whenuakura River catchment. The bog is of moderate size (4.07ha) and is a very good example of a very rare wetland type (WL12: manuka, tanglefern, scrub/fermland & WL13: sphagnum moss field) classified as 'Acutely Threatened' (Leathwick). The site contains notable fauna (NZ dabchick, spotless crane) and is likely to contain other notable fauna and flora. The site provides connection to other priority and general native habitats in the area.

Ecological Features

Flora

The vegetation in the majority of the bog is typical for this rare ecosystem type, although varies in the very wet margins and open water areas. Manuka is the dominant higher canopy species, with a mix of mingimingi and occasional lancewood, kamahi, karamu and tree ferns. Other lower stature vegetation includes flax, carex and ferns with large areas of tangle fern and extensive sphagnum cushions. A diverse range of submerged and semi submerged aquatic vegetation is also present.

Fauna

A good range of wetland birds are present including notable species such as the NZ dabchick and spotless crane. A few potential North Island fernbird single calls were heard although needs confirming. Other native birds include the grey duck, pukeko and grey warbler. A range of exotic birds were also present in and around the bog. There is also good habitat for reptiles and terrestrial invertebrates within the bog vegetation and notable species may be present. The bog may contain notable native fish species such as the brown mudfish. A diverse range of other aquatic fauna will also be present and introduced frogs and tadpoles were observed in abundance.

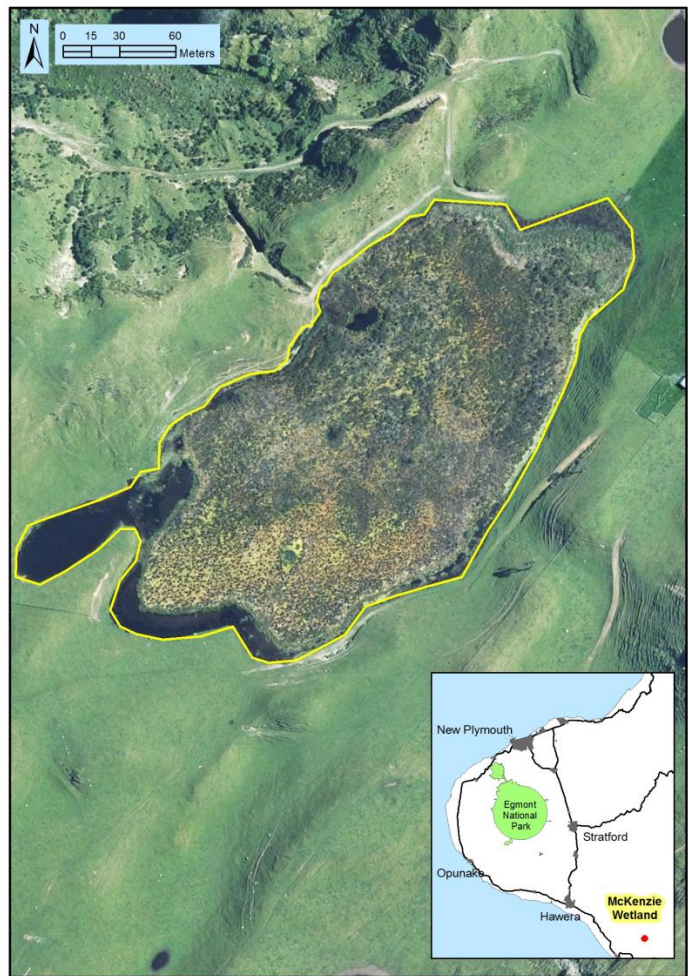
Ecological Values

Ecological context - High	Provides connectivity to other habitats in the area. Provides core habitat for the North Island fernbird, spotless crane, New Zealand dabchick and other notable fauna and flora.
Rarity and Distinctiveness - High	Contains notable species including New Zealand dabchick, spotless crane and North Island fernbird and other notable flora and fauna species will be present.

Representativeness - High	Contains indigenous vegetation on 'Acutely Threatened' (F5.2c) LENZ environment. The bog is also a very good example of a very rare wetland type in the region (WL12: manuka, tangle fern, scrub/fermland, and WL13: sphagnum moss field). Wetlands are high priority ecosystems, both regionally and nationally.
Sustainability - Positive	In good condition. Key ecological processes still influence the site. Under appropriate management, the wetland can remain resilient to existing or potential threats.

Other Management Issues

Habitat Modification - Medium	The natural buffer vegetation around this wetland is completely modified and is dominated by exotic pasture. There is a medium risk of modification to wetland area from drainage or extensive willow invasion.
Herbivores - Medium	Browsing is restricted by deep water on most of the wetland margin, although some stock browse is evident on the north end.
Predators - Medium	Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site.
Weeds - Medium	A small number of willow are present that have potential to greatly change the bog.





Date 9 June 2020

Subject: **Regional Monitoring Programme for Inhalable Particulate: 2016-2020**

Approved by: G K Bedford, Director - Environment Quality
B G Chamberlain, Chief Executive

Document: 2506498

Purpose

1. The purpose of this memorandum is to provide the Council with a report on the first four years' monitoring data from a programme tracking the concentration of fine particulate matter in the air in urban New Plymouth. The programme is one of the suite of programmes monitoring air quality in the region.
2. The Executive Summary and the recommendations from the report are attached to this memorandum for the information of the Committee. The full report is available at <https://www.trc.govt.nz/council/plans-and-reports/monitoring-reports/environmental-monitoring-technical-reports/>.

Executive summary

3. The Council implements a range of programmes monitoring aspects of air quality in the region, alongside other programmes assessing the state of the region's environment. A programme measuring levels of inhalable particulate matter in the air has now been reported for the first time. The report covers four years' worth of data.
4. Elevated concentrations of inhalable particulate matter are associated with a range of adverse health outcomes. New Zealand is moving towards new standards that will set maximum acceptable concentrations of this pollutant. The Council anticipated the requirement, and began to monitor for inhalable particulate four years ago.
5. The results confirm that Taranaki has good to excellent air quality, and that the major source of inhalable particulate is our marine environment.
6. It is proposed that the programme, together with targeted screening monitoring at various other locations, should continue for the foreseeable future.

Recommendations

That the Taranaki Regional Council:

- a) receives the memorandum *Regional Monitoring Programme for Inhalable Particulate: 2016-2020*
- b) notes the recommendations contained therein.

Background

7. Section 35 of the Resource Management Act (RMA) requires local authorities to undertake monitoring of the region's environment, including land, air, and fresh and marine water quality. The Council has delivered a number of targeted investigations into air quality at representative locations across the region. These have confirmed the low density and intensity of anthropogenic sources in Taranaki, and the region's high air quality.
8. The Council's *Regional Air Quality Plan for Taranaki* includes amongst other objectives, objectives 'to maintain the existing high standard of air quality in the Taranaki region' and 'to safeguard the life-supporting capacity of air throughout the Taranaki region'.
9. Amongst other pollutants of concern in air quality management, scientists, health experts, and regulators are concerned with the effects on human health of microscopically small particles that can remain suspended in the atmosphere for days to months. These particles are hundreds to thousands of times smaller in diameter than the thickness of a human hair.
10. Particulate matter found in the air can originate from a wide variety of sources, both natural and anthropogenic. In general, the most prevalent anthropogenic sources of particles are emissions from combustion processes, such as motor vehicle emissions, solid fuel and oil-burning processes (e.g. from residences, industry or power generation), and the incineration and burning of waste. Higher concentrations of these particles typically manifest themselves in forms such as smoke, photochemical smog, or haze. Natural sources, such as sea-spray and pollen, also contribute to overall levels.
11. The smaller of airborne particles lie in the size range below 10 microns (millionths of a metre), and are designated PM10. Particles of this size penetrate deep into the bronchial and lung system, (and are therefore deemed 'inhalable particulate'), and are strongly associated with increased risks in the short term of increased adverse medical outcomes for heart, respiratory and circulation conditions (eg asthma, emphysema, heart attack, strokes); over the longer term, increased concentrations correlate with increased cancer rates and premature death rates. There is a national standard for PM10 exposure over any period of 24 hours ($50 \mu\text{g}/\text{m}^3$), and a national guideline for annual PM10 exposure of $20 \mu\text{g}/\text{m}^3$. Increasingly it is being recognised that even smaller particles (PM2.5) pose the greatest risk; there is still no national standard for PM2.5, although the Ministry for the Environment is currently consulting on a proposal for one (see Ordinary Council agenda of 7 April 2020). The World Health Organisation has a 24-hour PM2.5 guideline of $25 \mu\text{g}/\text{m}^3$, and an annual average of $10 \mu\text{g}/\text{m}^3$.
12. The first inhalable particulate component of the State of Environment Monitoring (SEM) programme for air quality in Taranaki was initiated by the Taranaki Regional Council in the 1999-2000 monitoring year, with subsequent monitoring occurring on a periodic basis up to 2010. These programmes established that the most significant source of PM10 in Taranaki was the marine environment.

Discussion

13. In anticipation of a national PM2.5 standard for air quality in due course, the Council began a continuous monitoring programme for PM2.5 in 2016, at a residential urban site in central New Plymouth. The site was chosen in accordance with directives from the national standards. Live data from the monitoring unit is displayed in real time on the Council's website. The report discussed herein is the first report to be prepared on the results and interpretation of the programme.
14. Overall, data across the entire monitoring period shows that New Plymouth experiences low concentrations of PM2.5. The annual mean remained steady at 4 µg/m³ throughout the monitoring period, well below the threshold of 10 µg/m³ set by WHO. In addition, there were no exceedances of WHO's daily mean threshold of 25 µg/m³, with the highest daily mean reaching only 14 µg/m³ (56% of the guideline). The 95th percentile for all results was only around 60% of the maximum daily value that was measured, indicating that very few days have mean PM2.5 levels significantly outside the typical range.
15. The Ministry for the Environment ambient air quality guidelines (MfE 2002) categorise air quality based on a relative comparison with the relevant ambient guidelines. The results show that the air in New Plymouth can be considered 'excellent' (19%) or 'good' (77%) almost all the time, and 'acceptable' at all times.
16. In winter, the concentrations of PM2.5 reached peaks in the evening and to a lesser degree in the morning. Chemical analysis showed that products of combustion were a significant influence at these hours, especially during periods of light or no winds and atmospheric inversions (that trap emissions close to the ground).
17. There was no discernible connection of PM2.5 concentrations with traffic movement (rush hours).
18. Average concentrations were higher in winter than in other seasons. Concentrations were highest year round when winds were on-shore. Chemical analysis confirmed that sea salts are the biggest contributor to PM2.5 in Taranaki.
19. There is no indication from the data as to whether concentrations are overall increasing, reducing, or showing no trend.
20. Elsewhere around the world, there have been multiple reports that COVID-19 related lockdowns have resulted in very significant reductions in air pollution, due to vehicle and air travel restrictions and industrial closures. The limited data from the New Plymouth study did not conclusively show this reduction. Unfortunately the sampling pump failed two weeks into the lockdown period, so the data record is limited, and the wind direction during this period was predominantly from a direction that was correlated with lower concentrations in any case so the observed reduction could not be unambiguously associated with changes in human activity during the lockdown.
21. It is proposed to continue the continuous monitoring at the current site, and to undertake short-term screening sampling of PM2.5 and other particle size fractions at locations of interest around Taranaki.

Decision-making considerations

22. 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

23. 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

24. 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

25. 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

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

Appendices

Excerpt from Inhalable Particulate Regional Monitoring Programme Report: Executive Summary and Section 7: Recommendations

Attachments

Document 2431025: Inhalable Particulate Regional Monitoring Programme Report

Appendices

Executive summary

Section 35 of the Resource Management Act (RMA) requires local authorities to undertake monitoring of the region's environment, including land, air, and fresh and marine water quality. The inhalable particulate component of the State of Environment Monitoring (SEM) programme for air quality in Taranaki was initiated by the Taranaki Regional Council in the 1999-2000 monitoring year, with subsequent monitoring occurring on a periodic basis up to 2010 in various representative locations, reflective of the overall low level of anthropogenic sources and high air quality in the region.

This report describes the monitoring programme implemented by the Council to assess the quality of the ambient air in the New Plymouth CBD throughout the period 2016-2020, and the results of that work. While this is the fifth inhalable particulate monitoring programme undertaken in the Taranaki region, and fourth within the New Plymouth CBD, it is the first continuous and extended monitoring programme for PM_{2.5} (particulate matter less than 2.5 microns across) undertaken in the region. The decision was made by the Council to monitor for PM_{2.5} in lieu of PM₁₀, in anticipation that the next revision of the National Environmental Standards for Air Quality will include PM_{2.5}, since such data is more meaningful for evaluating public health risk than the current PM₁₀ standard.

The monitoring programme entailed the sampling of air using a Beta Attenuated Monitor (BAM) equipped with a PM_{2.5} size selective inlet, sited at Central School, New Plymouth. Continuous sampling was conducted for over the period February 2016 – April 2020. The Council also undertook analysis of filters used during the monitoring, to further investigate the likely origins of suspended particulate matter collected during the sample period.

Following MfE ambient air quality categories, applied to World Health Organisation (WHO) PM_{2.5} thresholds, the monitoring showed that 96% of daily mean PM_{2.5} concentrations fell into the Ministry's 'excellent' or 'good' air quality categories, while all days monitored met the 'acceptable' category. There were no exceedances of WHO's daily mean threshold, with the highest individual daily mean recorded over the entire dataset being 14 µg/m³. An annual mean of 4 µg/m³ was recorded for each full year of the monitoring period, or 40% of the threshold of 10 µg/m³ set by WHO.

Both filter analysis, and a comparison of monitoring results with meteorological conditions, indicate that marine aerosols are the major source of PM_{2.5} in the region. Emissions from domestic fires used for heating are also a major contributor to concentrations of PM_{2.5} levels during winter months in some localities, with levels being exacerbated by atmospheric conditions on calm evenings. The elevated levels of PM_{2.5} recorded during colder winter months result in a clear seasonality in the overall dataset.

The monitoring showed that PM_{2.5} concentrations are higher in the presence of moderate to strong prevailing onshore winds, with sea-salts prevalent on the analysed filters in such conditions. These findings agree with previous inhalable particulate surveys undertaken in New Plymouth, which found marine aerosols to be a major source of particulate matter in the region.

Long-term trend analysis undertaken on the monitored data shows no evidence that overall PM_{2.5} concentrations in the region are either increasing or decreasing.

An analysis of PM_{2.5} levels throughout the Covid-19 lockdown in March-April 2020 shows no evidence for a decrease in PM_{2.5} levels due to a decrease in anthropogenic sources such

as traffic. It is hard to reach firm conclusions on this, however, due to the low concentrations of PM2.5 being analysed, and the short period of the lockdown sampled.

Overall, these results, and all regional monitoring to date, show that Taranaki has very clean air, and on a regional basis there are no significant pressures upon the quality of air as a resource. Recommendations for future monitoring and investigations are listed in Section 7.

Recommendations

1. THAT it be noted that Taranaki Regional Council has now carried out continuous gathering of PM2.5 data in New Plymouth's CBD for a period of 4 years, spanning February 2016 – April 2020.
2. THAT it be noted that PM2.5 monitoring of ambient air in New Plymouth has shown low mean PM2.5 concentrations, with no exceedances of WHO recommended thresholds.
3. THAT it be noted that sea spray is a major contributor of PM2.5 in the Taranaki region year-round, with domestic heating also being a significant contributor during winter months.
4. THAT the Taranaki Regional Council continues to conduct continuous monitoring of PM2.5 in New Plymouth.
5. THAT the Taranaki Regional Council undertakes investigative monitoring of winter PM2.5 levels in vulnerable areas such as sheltered urban valleys, where worst-case PM2.5 levels are likely due the combination of home-heating emissions and strong temperature inversions.

Inhalable Particulate (PM_{2.5})
Regional Monitoring
Programme Report
2016-2020

Technical Report 2020-32

Inhalable Particulate (PM_{2.5})
Regional Monitoring
Programme Report
2016-2020

Technical Report 2020-32

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Document: 2506963 (Pdf)

Taranaki Regional Council

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STRATFORD

May 2020

Executive summary

Section 35 of the Resource Management Act (RMA) requires local authorities to undertake monitoring of the region's environment, including land, air, and fresh and marine water quality. The inhalable particulate component of the State of Environment Monitoring (SEM) programme for air quality in Taranaki was initiated by the Taranaki Regional Council in the 1999-2000 monitoring year, with subsequent monitoring occurring on a periodic basis up to 2010 in various representative locations, reflective of the overall low level of anthropogenic sources and high air quality in the region.

This report describes the monitoring programme implemented by the Council to assess the quality of the ambient air in the New Plymouth CBD throughout the period 2016-2020, and the results of that work. While this is the fifth inhalable particulate monitoring programme undertaken in the Taranaki region, and fourth within the New Plymouth CBD, it is the first continuous and extended monitoring programme for PM_{2.5} (particulate matter less than 2.5 microns across) undertaken in the region. The decision was made by the Council to monitor for PM_{2.5} in lieu of PM₁₀, in anticipation that the next revision of the National Environmental Standards for Air Quality will include PM_{2.5}, since such data is more meaningful for evaluating public health risk than the current PM₁₀ standard.

The monitoring programme entailed the sampling of air using a Beta Attenuated Monitor (BAM) equipped with a PM_{2.5} size selective inlet, sited at Central School, New Plymouth. Continuous sampling was conducted for over the period February 2016 – April 2020. The Council also undertook analysis of filters used during the monitoring, to further investigate the likely origins of suspended particulate matter collected during the sample period.

Following MfE ambient air quality categories, applied to World Health Organisation (WHO) PM_{2.5} thresholds, the monitoring showed that 96% of daily mean PM_{2.5} concentrations fell into the Ministry's 'excellent' or 'good' air quality categories, while all days monitored met the 'acceptable' category. There were no exceedances of WHO's daily mean threshold, with the maximum individual daily mean recorded over the entire dataset being 14 µg/m³. An annual mean of 4 µg/m³ was recorded for each full year of the monitoring period, or 40% of the threshold of 10 µg/m³ set by WHO.

Both filter analysis, and a comparison of monitoring results with meteorological conditions, indicate that marine aerosols are the major source of PM_{2.5} in the region. Emissions from domestic fires used for heating are also a major contributor to concentrations of PM_{2.5} levels during winter months in some localities, with levels being exacerbated by atmospheric conditions on calm evenings. The elevated levels of PM_{2.5} recorded during colder winter months result in a clear seasonality in the overall dataset.

The monitoring showed that PM_{2.5} concentrations are higher in the presence of moderate to strong prevailing onshore winds, with sea-salts prevalent on the analysed filters in such conditions. These findings agree with previous inhalable particulate surveys undertaken in New Plymouth, which found marine aerosols to be a major source of particulate matter in the region.

Long-term trend analysis undertaken on the monitored data shows no evidence that overall PM_{2.5} concentrations in the region are either increasing or decreasing.

An analysis of PM_{2.5} levels throughout the Covid-19 lockdown in March-April 2020 shows no evidence for a decrease in PM_{2.5} levels due to a decrease in anthropogenic sources such as traffic. It is hard to reach firm conclusions on this, however, due to the low concentrations of PM_{2.5} being analysed, and the short period of the lockdown sampled.

Overall, these results, and all regional monitoring to date, show that Taranaki has very clean air, and on a regional basis there are no significant pressures upon the quality of air as a resource. Recommendations for future monitoring and investigations are listed in Section 7.

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1 Introduction

1.1 General

The *Resource Management Act 1991* (RMA) established new requirements for local authorities to undertake environmental monitoring. Section 35 of the RMA requires local authorities to monitor, among other things, the state of the environment of their region or district, to the extent that is appropriate to enable them to effectively carry out their functions under the Act.

To this effect, the Taranaki Regional Council (the Council) has established a suite of state of the environment monitoring (SEM) programmes for the region. These programmes are outlined in the Council's 'State of the Environment Monitoring Procedures Document', which was prepared in 1997. The monitoring programmes are based on the significant resource management issues that were identified in the *Council's Regional Policy Statement for Taranaki (1994)*.

The SEM programmes are made up of a number of individual monitoring activities, many of which are undertaken and managed on an annual basis (from 1 July to 30 June). For these annual monitoring activities, summary reports are produced following the end of each monitoring year (i.e., after 30 June). Where possible, the compliance monitoring of individual consents has been integrated within the SEM programme to save duplication of effort and minimise costs. The purpose of annual SEM reports is to provide a regular summary of regional environmental monitoring activity results for the year, and provide an interpretation of these results, together with an update of trends in the data.

Annual SEM reports act as 'building blocks' towards the preparation of the regional state of the environment report every five years. The Council's first, or baseline, state of the environment report was prepared in 1996 (TRC, 1996), summarising the region's progress in improving environmental quality in Taranaki over the past two decades. The second report (for the period 1995-2000) was published in 2003 (TRC, 2003). Data spanning the ten year period 1995 to 2005 have been used in the preparation of a trend report (TRC, 2006). The third State of the Environment report (for the period 1995 to 2007) was published (TRC, 2009) and included trend reporting and the fourth report (for the 1995 to 2014 period) has been published (TRC, 2015). The provision of appropriate computer software statistical procedures allows regular reporting on trends in the environmental quality over time, in relation to Council's ongoing monitoring activities, now that there has been an accumulation of a comprehensive dataset of sufficient duration to permit a meaningful analysis of trends (i.e. minimum of 10 years).

This report summarises the results for the Inhalable particulate (PM_{2.5}) SEM programme over the 2016-2020 monitoring period. This is the first report on the Council's continuous PM_{2.5} monitoring programme, which was initiated in 2016. In total, this is the fifth inhalable particulate monitoring programme undertaken in the Taranaki region, and fourth monitoring run undertaken within the New Plymouth CBD since the inhalable particulate component of the SEM programme was initiated by Taranaki Regional Council in 1999-2000.

1.2 Background

1.2.1 The National Environmental Standard for Fine Particulates

In October 2004, the National Environmental Standards for Air Quality (NES-AQ) were released by the Ministry for the Environment (MfE). The NES is built up of 14 standards, which together aim to set a guaranteed minimum level of health protection for all New Zealanders. One aspect of air quality which is covered by the NES, and forms the focus of this report, is fine particulates, which can pose a serious health hazard when inhaled into the body.

Amongst other pollutants of concern in air quality management, scientists, health experts, and regulators are concerned with the effects on human health of microscopically small particles that can remain

suspended in the atmosphere for days to months. These particles are hundreds to thousands of times smaller in diameter than the thickness of a human hair.

Particulate matter found in the air can originate from a wide variety of sources, both natural and anthropogenic. In general, the most prevalent anthropogenic sources of particles are emissions from combustion processes, for example: motor vehicle emissions, solid and oil-burning processes (e.g. from industry or power generation), incineration and burning of waste, and domestic wood-fires. Higher concentrations of these particles typically manifest themselves in forms such as smoke, photochemical smog, or haze. Natural sources, such as sea-spray and pollen, also contribute to overall levels.

Air-borne particles vary greatly in size, with the posed health risk increasing with smaller particulate size. The scientific short-hand used to describe small airborne particles is in the form PM_n, where 'PM' =Particulate Matter, and 'n' represents the maximum diameter of the particles in question, expressed in microns (millionths of a metre, or µm). While relatively coarse particulate matter of 2.5-10 µm diameter may deposit in the nose, throat and upper airways, finer particulates of less than 2.5 µm can be inhaled deeper into the lungs, where air-blood exchange occurs. Ultrafine particles, of less than 0.1 µm diameter, are smaller enough to transfer into blood vessels and circulate around the body. Short term episodes of exposure correlate with increased adverse medical outcomes for heart, respiratory and circulation conditions (eg asthma, emphysema, heart attack, strokes); over the longer term, increased concentrations correlate with increased cancer rates and premature death rates as well as chronic effects of the sorts outlined above. Evidence has already emerged from medical studies during the covid-19 pandemic, of a strong correlation between areas of higher concentrations of fine suspended particulate and higher rates of mortality from covid-19 infection.

In order to avoid such effects, in 2004 the MfE set a NES-AQ for PM₁₀ of 50 µg/m³ (24-hour average), with 1 permissible exceedance per year. In addition, the National Ambient Air Quality guideline for PM₁₀ is an annual average of 20 µg/m³ or less. Previous monitoring by Taranaki Regional Council has focused on PM₁₀ levels, in line with the NES-AQ. However, even by 2004 the science had already advanced well beyond the setting of standards that were based on PM₁₀ measurements. It was widely recognised that the critical fractions of particulate matter for the protection of human health were those that were even smaller- PM_{2.5} or below. With evidence growing for the increased health hazards posed by even smaller particulates, there is a growing push for monitoring of PM_{2.5}. A decision was thus made by the Council to set up a continuous monitoring programme for PM_{2.5} in anticipation that the next revision of the NES-AQ will include PM_{2.5} and that in any case such data is more meaningful for evaluating public health risk in the region.

While there are currently no national standards for PM_{2.5}, the World Health Organization (WHO) guidelines can be used for assessing the significance of PM_{2.5} monitoring results (MfE, 2020). These are given in Table 1, along with permissible exceedances per year.

Table 1 WHO guidelines for PM_{2.5} monitoring

Threshold concentration (µg/m ³)	Averaging Period	Permissible Exceedances (per year)
25	24-hours	3
10	Annual	NA

1.2.2 Previous monitoring of inhalable particulates by the Council

To date, Taranaki is one of two New Zealand regions that have never exceeded national air quality standards. As a result of this, the region has never been required to create a 'gazetted airshed' in response to air quality issues, and ongoing National Environment Standard monitoring is not mandatory in Taranaki,

as it is in other parts of New Zealand with air quality issues. Regardless of this, the Council has continued regional air quality monitoring, in order to confirm and demonstrate that the region does not generally experience issues with air quality. With air discharges from industry and agriculture well regulated and no widespread change in the nature of regional emissions, there are no significant pressures on air quality in the region.

Since the inception of the inhalable particulate section of TRC's SEM programme in 1999-2000, there have been three inhalable particulate PM₁₀ monitoring runs carried out in central New Plymouth; in 2000, 2003 and 2010. In addition, there has been intermittent monitoring of air quality at various sites throughout Taranaki, used in each case to assess the impact of events such as construction work or increased traffic movement. Central New Plymouth has been used as the location for each SEM monitoring run to date, as it represents the largest urban area, with the greatest concentration of industry and traffic, in the region. Sites for monitoring PM₁₀ levels have thus been selected in the past as to represent 'worst case scenarios' for air quality, on order to best provide direction with respect to guiding future air quality management programmes.

As ongoing NES monitoring has not been mandatory in Taranaki, sampling periods, protocols and methodologies have varied between previous monitoring runs, and have not always been consistent with those laid out in the 'Good Practice Guide for Air Quality Monitoring and Data Management 2009'. The primary purpose of previous surveys has been to give an indication of the state of the region's air quality, using a screening approach, in order to determine if there is any justification for further investigations using the much more expensive techniques stipulated in the NES. The results of the three SEM runs that have been undertaken in New Plymouth are given in Table 1, and show that New Plymouth has had no significant air quality issues in relation to PM₁₀.

Table 2 Summary of results from previous SEM PM₁₀ monitoring runs

Site Identification and Description	Monitoring Period	Average PM ₁₀ Level (µg/m ³)	Range (µg/m ³)
New Plymouth: TSB Bank, CBD (urban)	January – May 2010	16	5-47
New Plymouth: NPDC office, CBD (urban)	May – October 2003	12.0	0.6-30.9
New Plymouth, Unichem Pharmacy, Devon-Currie St (Urban)	March – April 2000	9.6	0.7-26.0
National standard or guideline	Annual / 24-hour	20 / 50	-

While the results of these three previous PM₁₀ monitoring runs are not directly comparable, due to the different method and protocols employed, some general results are consistent across all runs. Firstly, it is noted that there have been no exceedances of NES for PM₁₀ in any of the runs. There are however, significant variations in air quality depending on the prevailing wind direction. Results from all three surveys have indicated that PM₁₀ levels are elevated when there is a stable onshore wind, with sea salt spray found to be a major contributing source. In contrast, correlation analysis of the 2003 survey suggested that there was no significant relationship between traffic volumes and PM₁₀ concentrations. This is, perhaps, not so surprising given that PM₁₀ levels in New Plymouth reflect a coastal environment, which may mask any underlying subtle variation due to relatively moderate traffic levels. However, a move to monitoring PM_{2.5} levels rather than PM₁₀ allows a closer examination of whether there is a traffic-related trend, given that the particulate matter resulting from traffic is generally smaller in size than that from sea-spray.

1.2.3 New Plymouth: geographic and meteorological setting

Located on the west coast of the North Island of New Zealand, the Taranaki region has an area of 723,610 square kilometres, and a population of 117,561 (2018 Census). The geography of the region is dominated by a large ring plain which surrounds the conical volcano, Mt Taranaki. The region is bordered to the east by remote hill country, while comparatively small areas of marine terraces and coastal sand country are found in the south and north of the region.

New Plymouth, with a population of around 60,000, is the region's only major city, with other smaller settlements found along the coast and around the ring plain. While the population of Taranaki, and in particular, New Plymouth, is on the increase, the region as a whole remains relatively sparsely populated. The foreshore of New Plymouth is dominated by retail and commercial areas, with residential areas spreading up the rising ground on the inland side of the city.

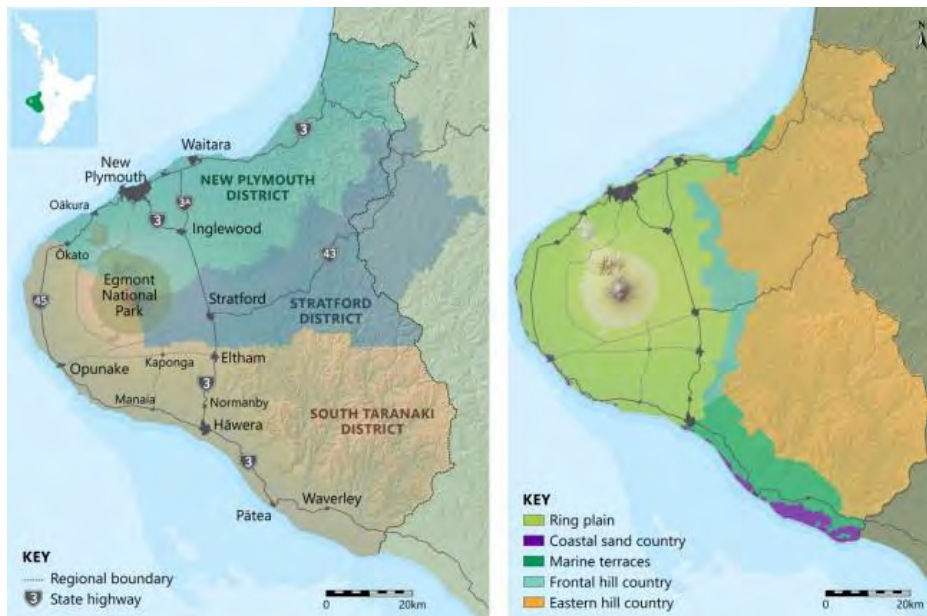


Figure 1 Left: Districts and settlements of the Taranaki region. Right: Major landforms of the Taranaki Region

Taranaki's climate is largely determined by its exposed position on the west of the North Island. Here, it lies in the path of weather systems as they migrate over the Tasman Sea before moving inland. As a result, the region is one of the windiest in New Zealand, while having a maritime climate of moderate temperatures and regular rainfall throughout the year. In New Plymouth, Westerly and South-Easterly winds dominate. South-Easterly winds are predominantly dry, and arise due to a combination of the deflection of southerly winds around Mt Taranaki, the south-easterly drainage of cold air from the slopes of the mountain, and night-time land breezes (Chappell, 2014), together with the downwind effects of low pressure systems moving across the South Island.

Rainfall patterns across the Taranaki region are closely related to elevation and exposure to the rain-bearing Northerly to Westerly winds. As a result, average annual rainfall varies from around 1000 mm on the Southern coast, to 2400 mm on the highest points of the ring plain, around Stratford. New Plymouth averages around 1500 mm of rainfall per annum.

2 Monitoring methodology

2.1 Introduction

Section 35 of the RMA sets out an obligation for the Council to gather information, monitor, and conduct research on 'the state of the whole or any part of the environment of its region'

The Taranaki region has a well-established record of excellent air quality, and monitoring of both industry and other consent holders enables the Council to anticipate whether any changes in overall air quality can be expected. In the past, the Council has demonstrated that the region continues to meet the NES for inhalable particulate by undertaking PM₁₀ monitoring approximately every 5 years.

The purpose of the monitoring is to provide information, on the regional level, of inhalable particulates, to the MfE's environmental monitoring and reporting programme. In anticipation of a revision to the NES for inhalable particles, PM_{2.5} levels were monitored for the current monitoring run, instead of PM₁₀. The data gained by the Council from the monitoring programme is robust, defensible, and of the high quality required to support and inform the Council in decisions regarding air quality management policies and practice.

2.2 Site location

Site selection was made following the guidance of *AS/NZS 3580.1.1:2016 Ambient Air-Guide for the siting of sampling units* as closely as possible. Given the general topography and setting of the Taranaki, site selection for air quality monitoring on a regional scale is not straight forward. As illustrated in Figure 1 and Figure 2, the general topography of much of the region conically slopes from Mt Taranaki outward to the coast, with many sheltered stream and river valleys. The influence of this relief on wind patterns is such that there are not many natural wind sheds regionally. The NES for air quality stipulate that monitoring must be undertaken where people may be exposed, and where the standard is breached by either the greatest margin, or most frequently. Given that New Plymouth is the largest urban area in the region, and has the highest concentration of industry and traffic (even though only moderate intensity by national comparison), a central city site location was selected as most suitable to give information on the 'worst case scenario' for PM_{2.5} levels and exposure in the Taranaki region. The North-East corner of Central School, on the corner of Lemon and Gover streets, was chosen as a suitable location for the PM_{2.5} monitoring site. The Central School site, shown in Figure 3 and Figure 4, is centrally located, with the edge of the New Plymouth CBD and main traffic routes 100-200 m to the north, and residential area surrounding the site to the south, west, and east. The site is located at the 'crossroad' of the prevailing wind directions from the west and south-east, lying in the path of air flows that have either just passed over, or are about to impinge, on residential areas. The site is thus located in a sensitive area, which is exposed to possible PM_{2.5} emissions from traffic, commercial, and residential sources.

The TRC received written approval from Central School's board of trustees on the 26th August 2015 for installation of the monitoring station, with installation carried out on 26th of February 2016. A further memorandum of understanding with regard to the ongoing operation of the monitoring site was signed between TRC and Central School Te Kura Waenga O Ngāmotu, (Appendix I), on 8th October 2018. In addition to the monitoring station, the TRC also installed a surveillance camera facing the monitoring station to reduce any chances of vandalism. The camera has also proved useful for investigating possible nearby sources of spikes in PM_{2.5} levels.

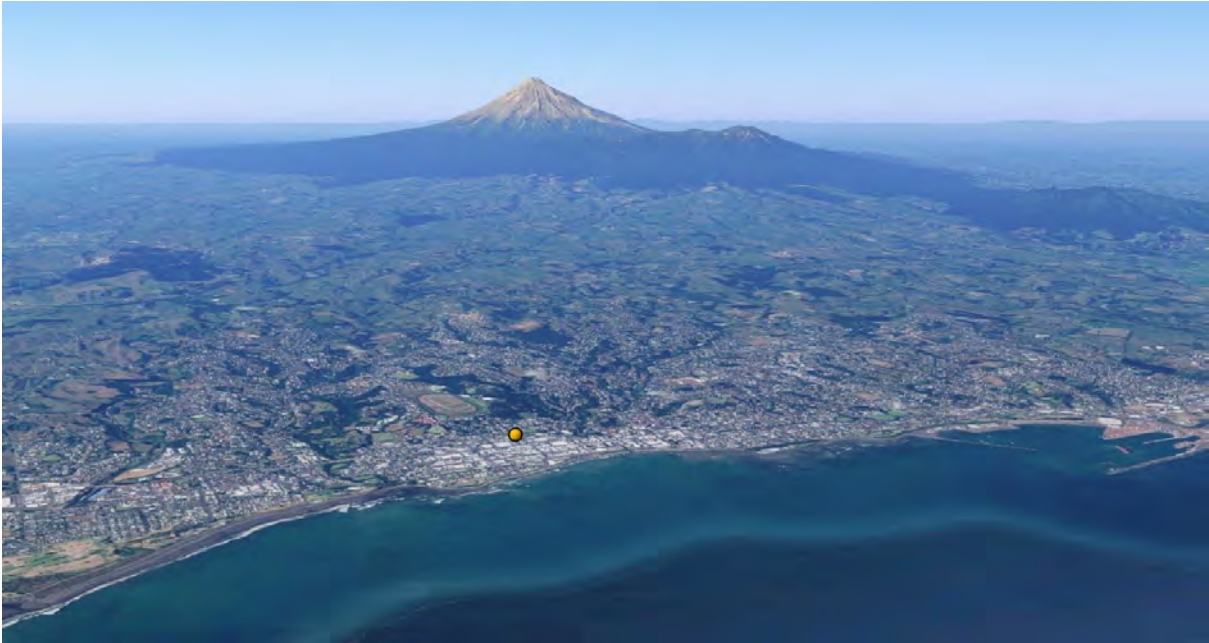


Figure 2 Overview of the regional setting of the Central School PM_{2.5} monitoring site (yellow dot). The image is taken facing true South. (Background image: Google, 2020)



Figure 3 Location of the Central School PM_{2.5} monitoring site within New Plymouth



Figure 4 Location of the PM_{2.5} monitoring site in the NE corner of Central School (yellow dot)

2.3 Monitoring equipment and method

The United States Environmental Protection Agency (USEPA) categorises particulate monitoring methodologies as either reference, or equivalent methods. Reference methods are gravimetric, where direct measurements of the weight of the collected sample are taken. Equivalent methods are alternative methodologies that have been certified as giving results equivalent to the reference method.

A Beta attenuation monitor (BAM), is one such recognised equivalent method. Here, a measured amount of ambient air is vacuum pumped through a paper-band filter. The concentration of particulate matter is then determined by measuring the decrease in radiation intensity between a constant beta source on one side of the filter, and a sensitive scintillation detector on the other side. The mass concentration of particulate matter on the filter is proportional to the decrease in beta radiation count, and can be calculated via the Beer-Lambert law. From this, the volumetric concentration of particulate matter in the ambient air can be determined.

In this survey, a Met Instruments Inc. Model E-BAM measurement system (Figure 5) was used to automatically measure and record airborne PM_{2.5} concentration levels at the selected study site. While the beta attenuation method is one of four general recognised equivalent methods for PM_{2.5} monitoring, the E-BAM system employed is not currently designated as a US EPA Federal Equivalent Method (FEM). It was, however, deemed to be the most appropriate instrument to use in this case, given that this monitoring programme represents a first test both of continuous monitoring at a permanent ambient air site, and of SEM PM_{2.5} monitoring in the region. Although the E-BAM system is not an FEM, it is designed to accurately predict FEM concentration measurements, with a comparative study between the E-BAM and BAM instruments showing that, if anything, the E-BAM overestimates PM levels, when in humid conditions (Schweizer et al. 2016).

The E-BAM instrument was operated and configured during this monitoring programme as per the requirements detailed in:

- *AS/NZS 3580.1.1:2016 Ambient Air-Guide for the siting of sampling units.*
- *AS/NZS 3580.9.12:2016 Methods for sampling and analysis of ambient air; Determination of suspended particulate matter – PM_{2.5} beta attenuation monitors*
- *MfE Good Practice Guide for Air Quality Monitoring and Data Management 2009*
- *E-BAM Particulate Monitor Operation Manual*

The E-BAM was set up to sample ambient air through a size-selected PM_{2.5} inlet.



Figure 5 E-BAM set-up and installation at Central School, New Plymouth

2.4 Data collection and processing

2.4.1 E-BAM measurements

Two records of PM_{2.5} concentration are measured simultaneously by the E-BAM unit: the first a quasi-real-time record consisting of 10-minute averages of the E-BAM's constant 1-minute measurements, and the second, a higher accuracy measurement taken on an hourly cycle.

The 1-hour measurement record is used for all analyses carried out in this report due to its higher level of accuracy and lower detection limit when compared to the 10-minute averaged measurements. The hourly concentration measurement is based on two 4-minute long beta counts, one at the beginning, and the other at the end of each sample hour. The two counts are used to calculate the particulate mass that has accumulated on the filter tape within the hour. This measurement is combined with measurements of the internal air flow taken throughout the hour, to determine particulate concentration.

While the 10-minute averaged measurements gives a quasi-real-time record of PM_{2.5} concentrations, it has both a lower accuracy, and higher detection limit compared to the hourly measurements. This is due to the small amount of particulate which deposits on the filter tape during each short sampling time, along with the comparatively small volume of air that is sampled for each measurement. The 10-minute average record is useful, however, in helping identify periods of unscheduled data loss, and pinpointing anomalous events in the data record.

In addition to PM_{2.5} concentration and airflow, the E-BAM unit is equipped with sensors to measure air temperature, relative humidity and air-flow through the measurement unit, with data recorded every 10 minutes. A separate ambient air temperature sensor was also set up at the monitoring site, while rainfall and wind data was collected at the nearest, best-fitting, meteorological site, as detailed in Section 2.5. All data from the E-BAM and associated sensors was recorded to an external on-site data logger with telemetry sent directly to TRC, where a complete database was compiled.

Maintenance and servicing of the E-BAM was undertaken to the guidelines given in the *E-BAM Particulate Monitor Operation Manual*. Notes on all maintenance and service were inserted directly into the central database. In accordance with the *MfE Good Practice Guide for Air Quality Monitoring and Data Management 2009*, data collected during calibration and maintenance period was removed, including sufficient time for instrument stabilisation. Data screening was also undertaken, with data removed for periods where the E-BAM air-flow rate dropped by more than 5% from its usual steady state of 16.7 L/min. Spikes in PM_{2.5} levels were also investigated, with data removed when the spike was found to be due to monitor malfunction, or other anomalous events – such as when it was found people were smoking directly underneath the monitoring equipment.

In line with *MfE 2009*, negative data values were left in the data record. This is particularly important given the generally low ambient concentrations of PM_{2.5} measured, as there were a notable number of hourly measurements with PM_{2.5} concentrations between 0 and -5 µg/m³. These measurements are, within analytical uncertainty, indistinguishable from the lower detection limit of the E-BAM, so were retained in the overall data set as to avoid artificially increasing the average ambient concentration. The exception to this was between midnight and 01:00 each day, when the E-BAM automatically undertook a filter change and recalibration. Here, a large negative spike was consistently encountered in the record. The decision was made to omit the 24:00 to 01:00 hour from daily average calculations, resulting in 23-hour averages been calculated, rather than 24-hour.

All hourly averages in the main database apply to the preceding hour (e.g. the hourly measurement for 13:00 represents data collected between 12:00 and 12:59). However, for compatibility reasons, all measurements were stepped back one hour when imported into R software. Thus in all plots and statistics in this report, data assigned to e.g. 13:00 is for the time period 13:00 to 13:59. All measurements are recorded and reported in NZST.

2.4.2 Filter analysis

In order to further investigate what different sources could be contributing to PM_{2.5} levels at the monitoring site, the Council sought to have selected filters, collected from the E-BAM monitor at various times throughout the monitoring period, analysed for elemental composition. The analysis of the morphology and atomic % elemental composition of seven samples, including a blank, was undertaken by scanning electron microscopy at the Research Centre for Surface and Materials Science, University of Auckland. The results of the filter analysis are compared to site PM_{2.5} levels and meteorological conditions recorded on each associated day. The full report from the University of Auckland is presented in Appendix II.

2.5 Meteorological data

In order to investigate the correlations between PM_{2.5} levels and different meteorological conditions, data, including rainfall, wind direction and wind speed, was recorded throughout the duration of the monitoring programme. Meteorological data was obtained from two stations; New Plymouth Waste Water Plant (prior to 6th May 2017) and Hillsborough (after 6th May 2017). The stations lie approximately 4 km north-east and 5 km east away from the Central School monitoring site respectively (Figure 6). The location of the meteorological station was changed mid-way through the survey, from the exposed coastal location of the Waste Water Treatment Plant, to the more in-land location of Hillsborough, in order to be more representative of a number of the Council's survey sites. Data from both stations were recorded simultaneously for a period, in order to ensure consistency between the two sites, before the Waste Water Plant station was decommissioned. South-easterly and west to south-westerly winds dominate in the study area (Figure 7), with westerly winds bringing the majority of rainfall (Figure 8). It should be noted in Figures 7 and 8 that the convention is to show the direction **from** which the wind has come.

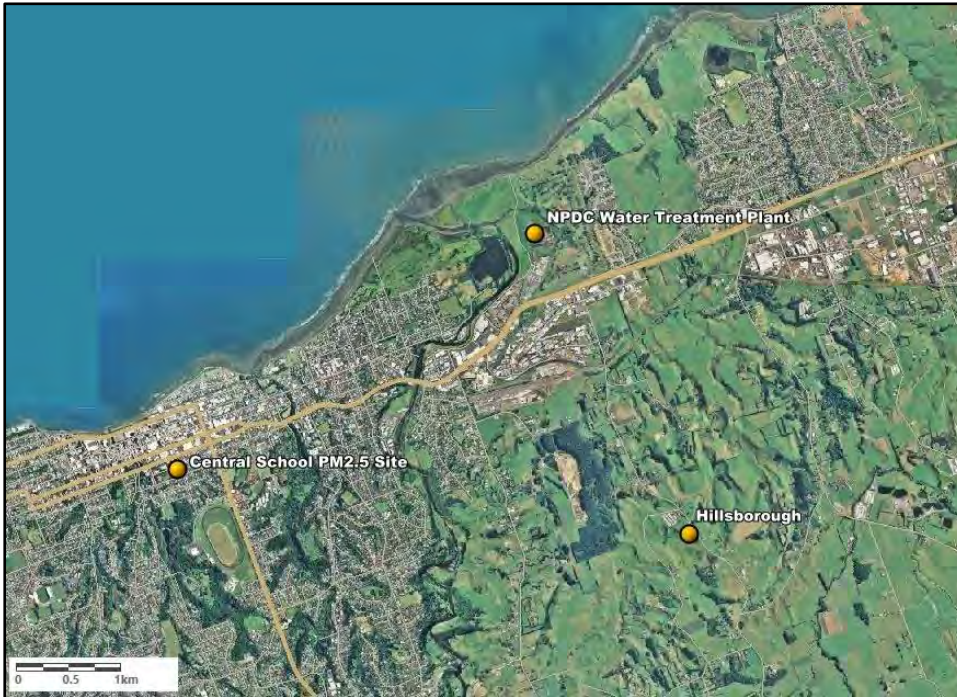


Figure 6 Location of Meteorological Stations with respect to the Central School monitoring site

2.6 Data analysis methods

All statistical analyses and plots produced in this report were undertaken and produced using the R statistical software (R Development Core Team. 2011), using the package 'openair' (Carslaw and Ropkins. 2012).

The Theil-Sen approach was used to explore for any long term trends in the overall data record. This was carried out using de-seasonalised monthly-mean $PM_{2.5}$ records. The Theil-Sen approach gives an estimate of the slope of any observed trend through calculating the slope between all data points in the record and taking the median value. The method has the significant advantage of being resistant to outliers in the data, and accurately determining confidence intervals, both important qualities when analysing air quality data. The accuracy of both the estimated trend, and associated confidence intervals were further improved through boot-strap resampling.

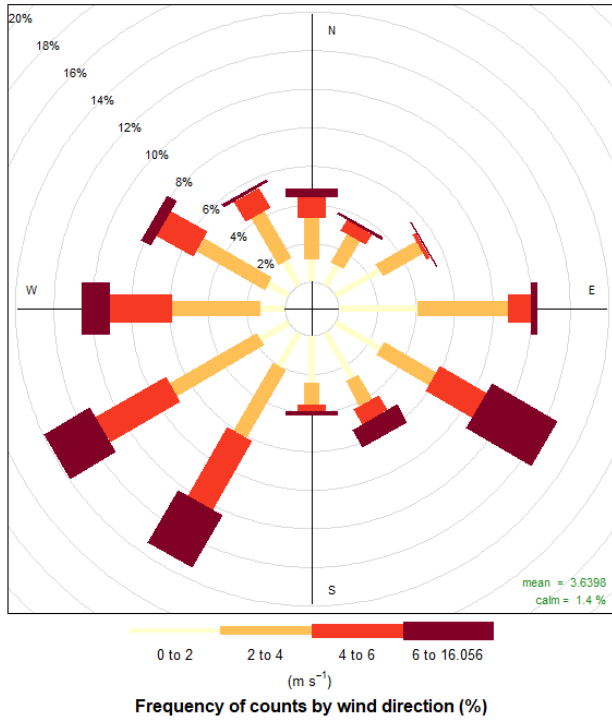


Figure 7 Wind rose for the whole monitoring period (from hourly data)

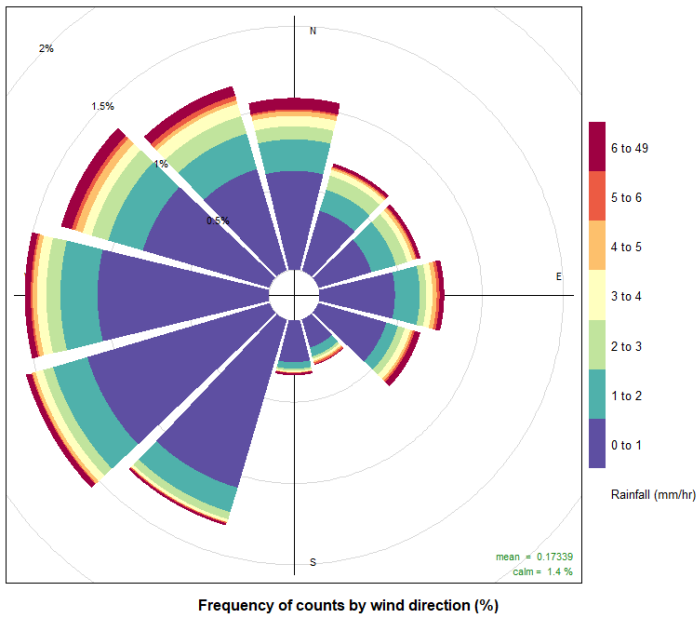


Figure 8 Frequency of rainfall for different wind directions throughout the monitoring period (from hourly data)

3 State of PM_{2.5} levels

The data analysed for the purposes of this report consists of PM_{2.5} concentration levels at the Central School site monitored continuously between 26/02/2016 13:00 and 10/04/2020 24:00, a time span of 36131 hours. Throughout the monitoring period, a total of 27 hours of record was lost to scheduled maintenance and servicing of the E-BAM, with another 657 hours counted as unscheduled gaps, with data lost due to equipment failure. In addition, the hour between midnight and 1am each day, during which the EBAM underwent a filter change was removed, with 1478 hours of record routinely removed over the monitoring period. As a result, data capture over the entire monitoring period, at the hourly scale, was 94.1%, with 94.0% valid data. In this calculation, the removal of the midnight hour of data, although routine, was counted as unscheduled data loss.

3.1 Summary statistics

Daily means were calculated from the hourly data when the 75% data acceptance threshold was met. In most cases, this led to a 23-hour average over the day. Of the 1506 days covered by the monitoring period, valid daily averages were obtained for 1477 days, or 98.1% of the monitoring period. A summary of data from the entire monitoring period, and for each year, is given in Table 3 and Figure 9, below. The individual year statistics from 2020 are based solely on data from January to April 10th and are thus not representative of the entire year. Likewise, although the 75% data threshold is met for the year 2016, it is noted that there may be some bias in the 2016 statistics, as the summer months of January and February were not included in the monitoring period.

Table 3 PM_{2.5} air quality summary statistics based on daily means

	Complete Monitoring Period	2016 (Feb 26-)	2017	2018	2019	2020 (-Apr 10)
# Data Points	1506	310	365	365	365	101
% Data Capture	98.1	84.7	94.2	97.8	100	27.6
% Valid Data	98.1	84.7	94.2	97.8	100	27.6
Mean	4	4	4	4	4	3
Maximum	14	14	13	11	13	13
Median	4	4	4	4	4	3
Standard Deviation	1.98	2.15	1.88	1.87	2.01	1.89
Interquartile Range	2	3	2	2	2	2
25 th percentile	3	3	3	3	3	2
75 th percentile	5	5	5	5	5	4
95 th percentile	8	8	7	7	8	6
99 th percentile	10	10	10	9	11	10

3.2 Comparison to WHO guidelines

Overall, data across the entire monitoring period shows that New Plymouth experiences low concentrations of PM_{2.5}, with the annual mean remaining steady at 4 µg/m³ throughout the monitoring period. All annual means are well below the threshold of 10 µg/m³ set by WHO. In addition, there were no exceedances of WHO's daily mean threshold of 25 µg/m³, with a maximum daily mean recorded of 14 µg/m³. The 95th

percentile is noted to be only around 60% of the maximum daily value that was recorded, indicating that it is only a few days that have mean $PM_{2.5}$ levels significantly higher than the typical range.

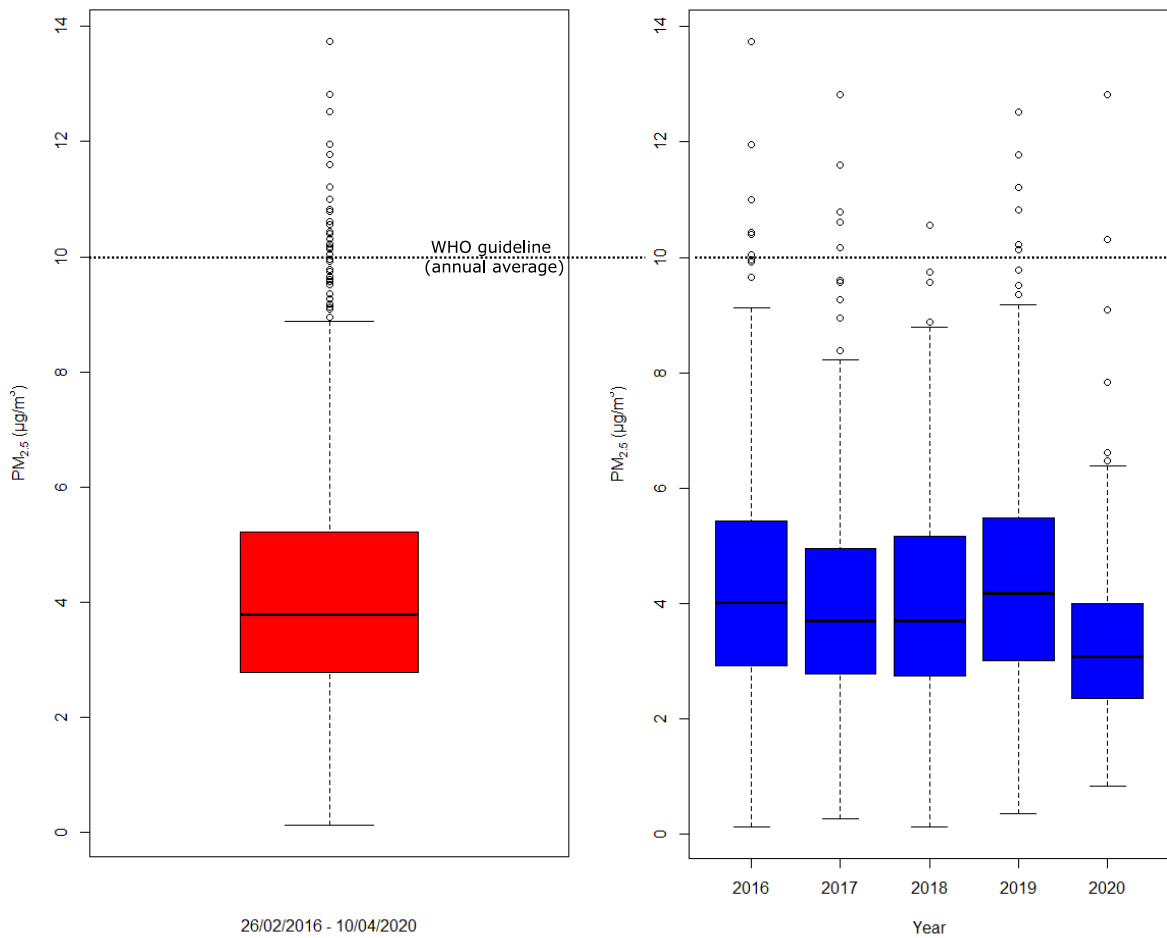
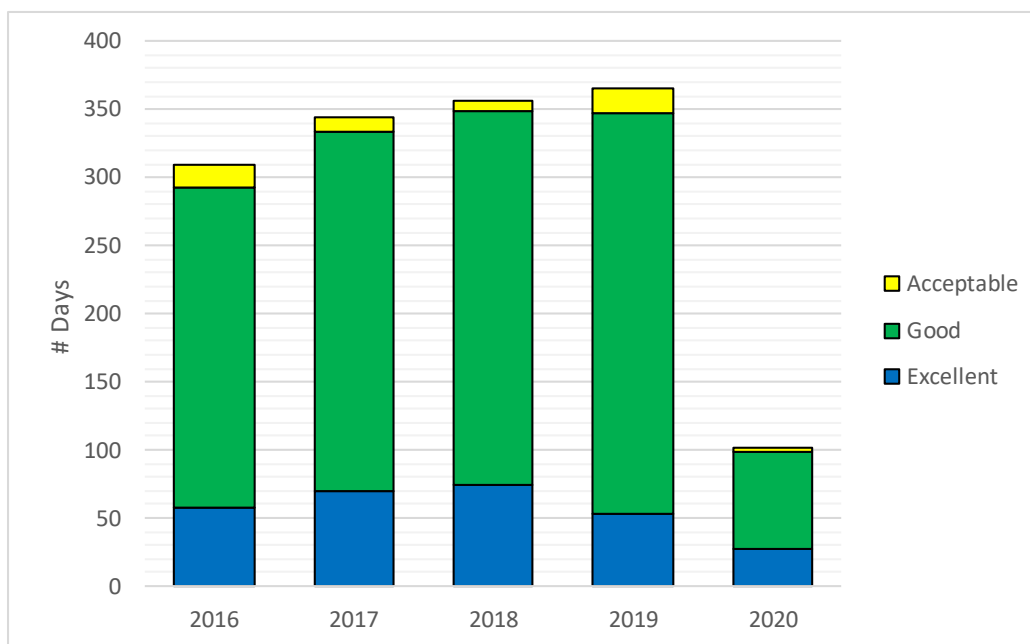


Figure 9 Boxplots of $PM_{2.5}$ for (left) the complete monitoring period, (right) data from each year of the monitoring period. The WHO guideline for daily average concentration is $25 \mu\text{g}/\text{m}^3$, well above the maximum recorded concentration, and outside the bounds of the plot

The MfE ambient air quality guidelines (MfE 2002) propose that regional air quality can be categorized based on a comparison with the ambient guidelines. These categories are set out in Table 4, using the WHO daily mean threshold of $25 \mu\text{g}/\text{m}^3$ as a reference. The results show that the air in New Plymouth can be considered 'excellent' or 'good' 96% of the time, and 'acceptable' at all times, with these percentages relatively constant across the 4 years that the study spanned. Further details on the air quality categories recorded for each year are given in Table 4 and Figure 10.

Table 4 Categorisation of results into environmental performance indicator air quality categories

Category	Category values ($\mu\text{g}/\text{m}^3$)	# Days in Category (%)					
		Complete Period	2016	2017	2018	2019	2020
Excellent	<2.5	283 (19%)	58 (19%)	70 (20%)	74 (21%)	53 (14%)	28 (28%)
Good	2.5 – 8.3	1136 (77%)	234 (75%)	264 (77%)	274 (77%)	294 (81%)	70 (69%)
Acceptable	8.3 -16.6	58 (4%)	18 (6%)	10 (3%)	9 (2%)	18 (5%)	3 (3%)
Alert	16.6 – 25	0	0	0	0	0	0
Action	>25	0	0	0	0	0	0

Figure 10 Number of days per year with PM_{2.5} concentrations in each air quality category

4 Trends in PM_{2.5} levels

The air quality at any particular site is dependent on what the contributing sources of pollution are present. These can vary temporally, and are often dependent on the different meteorological conditions which control the atmospheric stability at and near the site. In order to try and better understand the air quality at a site, it is thus important to investigate the combination of emission sources and meteorological conditions present.

4.1 Diurnal and seasonal variations in PM_{2.5}

The daily, weekly and monthly variations in PM_{2.5} concentration at the Central School site are shown in Figure 11. While overall PM_{2.5} levels are low, there are notable variations in concentrations, both on a seasonal, and a daily scale. Mean PM_{2.5} concentrations are observed to be comparatively high during the colder months of May – July, with significantly lower levels observed during late summer (February – May). Mean concentrations are also higher during the earlier summer months of November to January.

At first look, the overall diurnal variation in PM_{2.5} appears to have two peaks, one in the morning and one in the evening. On closer inspection, however, the strong seasonality observed in mean PM_{2.5} levels biases the apparent overall diurnal pattern. A comparison of the diurnal variation in PM_{2.5} concentrations between the different seasons is given in Figure 12, and shows that the diurnal variation during the cold winter months follows a distinctly different pattern than the other seasons. The winter months of June, July and August, show the most pronounced diurnal variation, with two clear peaks in PM_{2.5} levels each day. The large smooth peak in PM_{2.5} concentrations observed in evenings is consistent with the influence of home heating being used throughout winter, while the smaller morning peak could be due to some households relighting burners during the cool morning hours. When diurnal patterns during individual months are compared (Appendix IV), it can be seen that a similar, if less pronounced, diurnal pattern is also observed during May, when temperatures are cooling. This has an influence on the autumn diurnal variation seen in Figure 12.

In contrast, the diurnal variation of PM_{2.5} during spring and summer does not show two distinct peaks, but more generally a spike in PM_{2.5} concentrations in the morning, followed by a gradual decrease throughout daylight hours. It is not immediately possible to identify what is controlling or contributing to this overall diurnal trend, as there are a number of possible sources of PM_{2.5} whose contributions vary throughout daylight hours. These include coastal land and sea breezes, as well as human activity in general. It can, however be noted that the overall diurnal pattern does not appear consistent with being driven by traffic patterns, in which peak emissions would be expected at popular commuting times. This suggests that although traffic emissions may contribute somewhat to overall concentrations, they are not likely to be the main driver of PM_{2.5} pollution at the site.

In order to further narrow down what is contributing to the recorded PM_{2.5} levels at different times, a closer look at meteorological and anthropological factors is required. This is provided in the following sections.

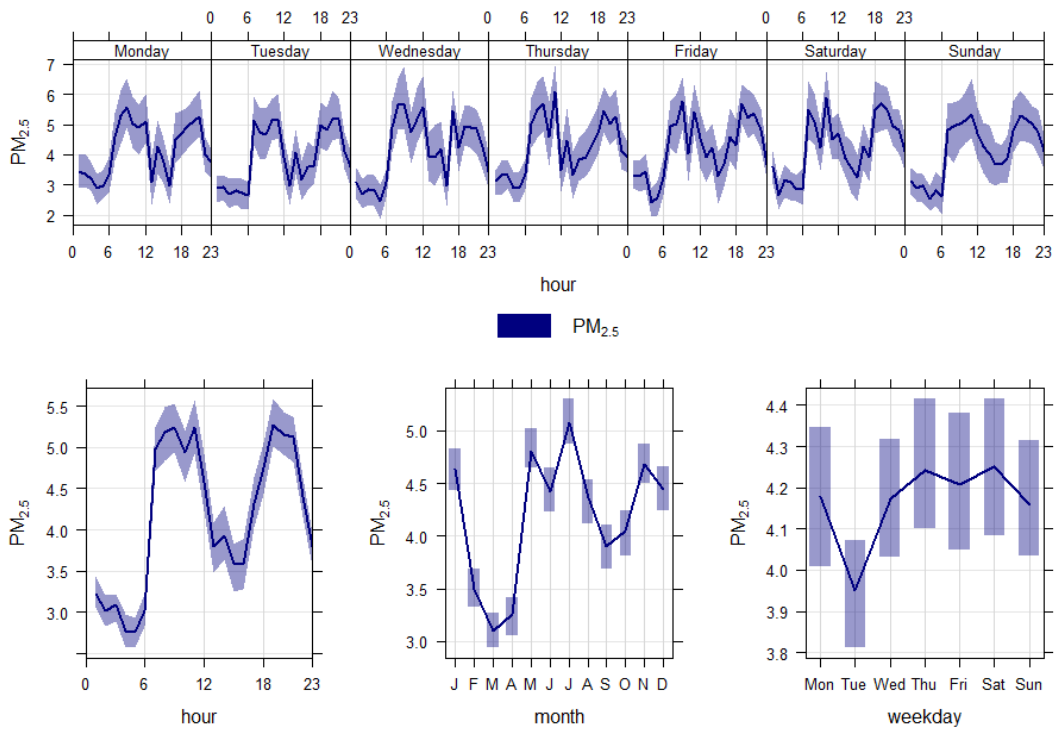


Figure 11 Temporal variations in $PM_{2.5}$ concentration at the Central School site between 2016 and 2020. The four plots show the variation in $PM_{2.5}$ concentration by: hour and day of the week, hour of the day, month of the year, and day of the week. 95% confidence intervals for the means are shown by the shaded areas

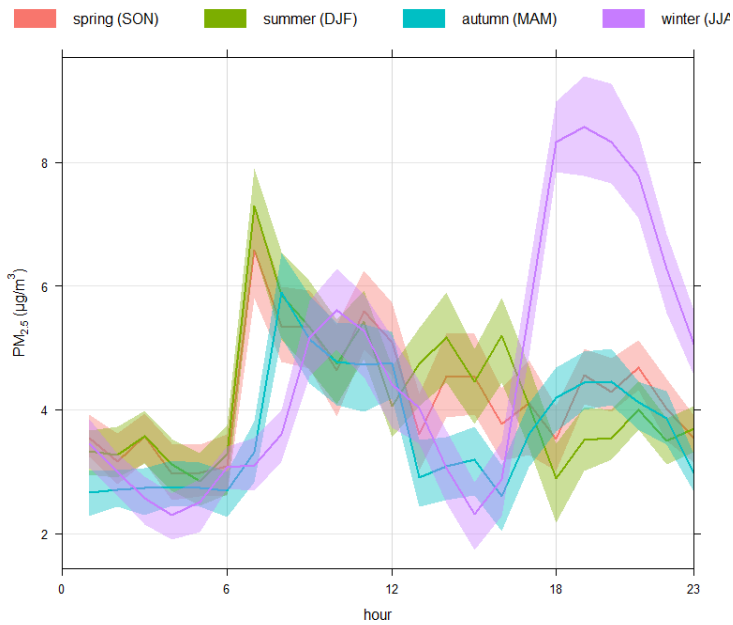


Figure 12 Comparison of the diurnal variation in $PM_{2.5}$ concentration during different seasons. 95% confidence intervals for the means are shown by the shaded areas

4.2 Comparison of PM_{2.5} with meteorology

A Pearson's correlation analysis was undertaken between PM_{2.5} concentrations and different meteorological variables, using the daily means from throughout the entire monitoring period. The resulting matrix (Figure 13) shows that there is no evidence of a correlation between overall PM_{2.5} levels and either temperature or rainfall. While care must be taken when taking daily averages of wind direction, due to aliases that can be introduced by rapidly changing winds, the overview given by looking at the dataset as a whole can be insightful. Indeed, the strongest correlation present in Figure 13 is that between PM_{2.5} levels and wind direction.

A pollution rose comparing hourly PM_{2.5} concentrations with wind direction throughout the monitoring period is shown in Figure 14. From this it can be seen that higher PM_{2.5} concentrations occur with greater frequency when the wind is from a Westerly direction. Conversely, a higher frequency of low PM_{2.5} levels occur with Easterly winds. In order to investigate this trend closer, the PM_{2.5} record is split into two categories; those days with prevailing onshore winds, and those with offshore winds. For this analysis, onshore was defined as winds from 180-360° (i.e. the westerly directions), while offshore was defined as 0-180°. While this definition does not fit on a local scale around the monitoring site, it was decided on due to the regional setting and weather patterns experienced at the site. In this case, winds experienced from the south west originate from the coast, and thus when considering the potential sources of PM_{2.5}, are considered onshore.

Interestingly, while there is only a very low correlation between wind speed and PM_{2.5} levels when the PM_{2.5} dataset is considered as a whole, when it is split into onshore and offshore winds, two clear different correlations are apparent. As seen in Figure 13, there is a moderate positive correlation between wind speed and PM_{2.5} concentrations when the prevailing wind is onshore. In contrast, there is a somewhat weaker, but still moderate, negative correlation between wind speed and PM_{2.5} concentrations when the prevailing wind is offshore.

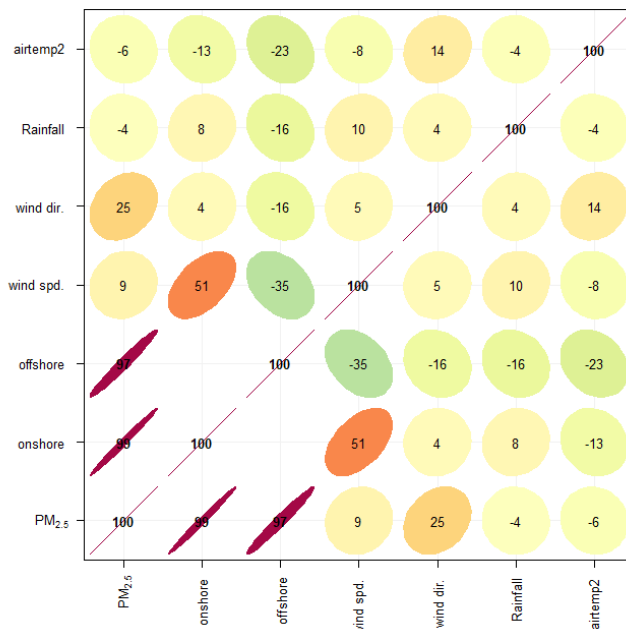


Figure 13 Pearson's correlation matrix of PM_{2.5} with different meteorological variables, calculated from daily means over the entire monitoring period. When daily PM_{2.5} means are split into two categories; those days with prevailing onshore (180°-360°) winds, and those with offshore winds (0°-180°) the different correlation between PM_{2.5} levels and wind speed depending on wind direction is seen

This pattern is especially apparent when the monitoring period is split into days of different PM_{2.5} air quality categories, and the wind patterns of each compared, as in Figure 15. It is immediately apparent that the vast majority of days that fall in the 'Acceptable' category, the worst classification recorded at the Central School site, occur on days with moderate to strong westerly (onshore) winds. Meanwhile, days with prevailing light onshore winds generally having 'Excellent' or 'Good' PM_{2.5} levels. This is in contrast to the pattern observed with prevailing Easterly (offshore) winds. In these cases, days with moderate to strong winds fall exclusively in the 'Excellent' or 'Good' categories, while the very few days with prevailing Easterly winds which fall in the 'Acceptable' category, occur when winds are light and conditions are relatively calm. Overall, this suggests that the sources of PM_{2.5} emissions recorded in offshore winds are relatively local to the monitoring site. In contrast, the correlation between stronger westerly winds and higher PM_{2.5} levels suggests that the main sources of PM_{2.5} recorded in onshore winds are comparatively further from the monitoring site.

Another feature that can be seen when the PM_{2.5} data is subset into days with onshore and offshore prevailing winds is the differing correlations between PM_{2.5} levels and rainfall, depending on wind direction. This is a feature which is averaged out when the data set is looked at as a whole. For days where there is a prevailing offshore wind, there is a moderate negative correlation between rainfall and PM_{2.5} levels. This is consistent with the common assumption that drier periods increase dust burdens in the atmosphere. In contrast, for days with a prevailing onshore wind there is a weak positive correlation between rainfall and PM_{2.5} levels. This is, however, weaker than the correlation between wind speed and PM_{2.5} levels on the same days. This is consistent with the findings from previous PM₁₀ studies undertaken in New Plymouth. In these studies, sea spray was found to be the major source of PM₁₀ in the area, with the contribution from wind-blown sea spray found to be more significant than that from rain deposited sea spray. The similar behaviour observed in PM_{2.5} levels in the current survey suggest that sea spray in general, and more particularly, wind-blown sea spray, is a significant source of PM_{2.5} in New Plymouth.

Interestingly, when the Pearson's correlation matrix in Figure 13 is split into different seasons and months (Appendix IV), some further features become notable. Firstly, it can be seen that there is no seasonality to the correlation between onshore wind speed and PM_{2.5} levels, with a moderate to strong correlation between the two variables all year round. In contrast, the negative correlation between offshore wind speed and PM_{2.5} levels is strong during the cold months of May through August, but is variable throughout the rest of the year. This is highly consistent with high PM_{2.5} levels being caused in these cases by the use of domestic heating on cold evenings with stable atmospheric conditions.

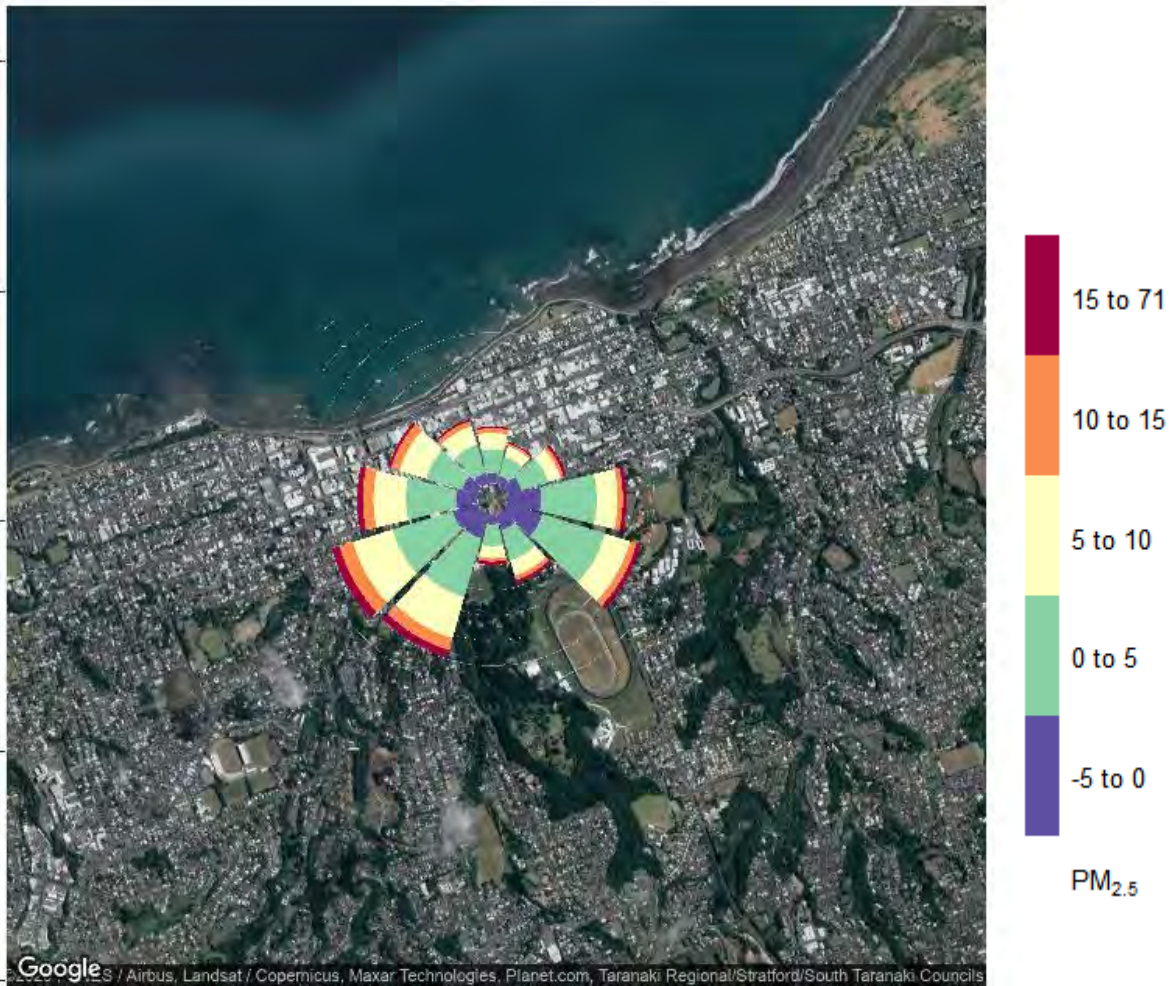


Figure 14 Pollution rose showing the frequency of different PM concentration levels with wind direction through the study period. The pollution rose is centered on the Central School monitoring site, allowing reference to potential sources in close proximity to the site, as well as further away. (Background image: Google, 2020)

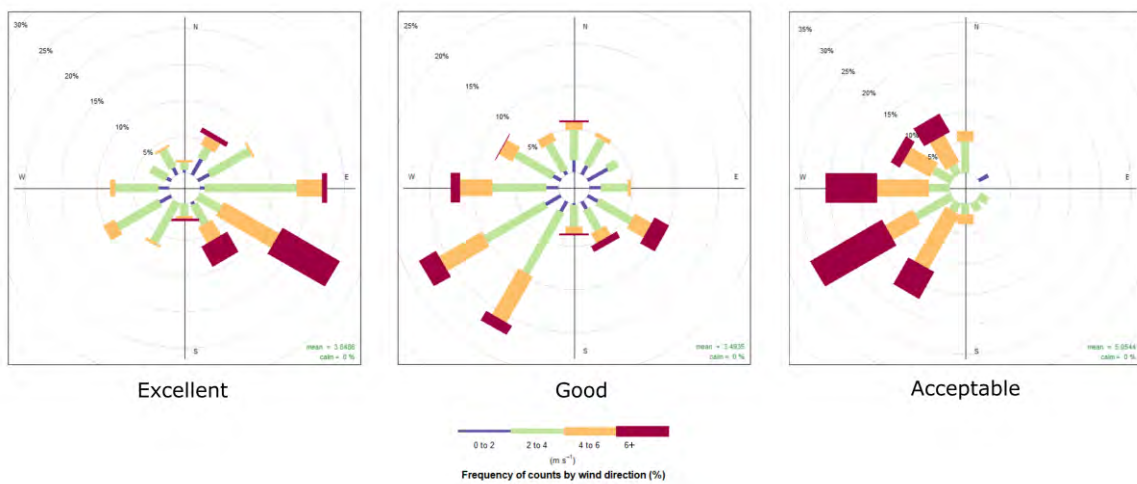


Figure 15 A comparison of wind roses for days falling into different PM_{2.5} air quality categories (as defined in Section 3.2. Wind data is taken as daily averages of prevailing wind direction and speeds

4.3 Long term trends

Long term trend analysis was carried out on the Central School measurement records using a non-parametric Theil-Sen approach. Long term trends are more easily identified in longer continuous data sets than that currently recorded at this site, or when a known change of regulations or conditions has occurred in the region. However, an exploratory analysis is none-the-less undertaken in this case. The Theil-Sen trend estimate, undertaken on de-seasonalised monthly-mean data, along with the 95% confidence interval, is shown in Figure 16. Given the breadth of the 95% confidence interval, which encompasses 0, it is indeterminate whether PM_{2.5} levels are increasing, decreasing, or remaining steady.

Interestingly, when trend analysis is undertaken on data split by wind direction (Figure 17), there appears to be an increasing trend in PM_{2.5} levels with northerly winds, and a decreasing trend seen in those measured during southerly winds. It is noted, however, that the monthly means calculated for this analysis do not meet 75% data thresholds, meaning that no robust conclusions can be drawn from the analysis. In addition, there is relatively little data for northerly and southerly winds compared to the more prevalent west to south west and south easterly winds. Further analysis of how robust these apparent trends are, and what may be causing them, require further monitoring data and detailed source apportionment investigations.

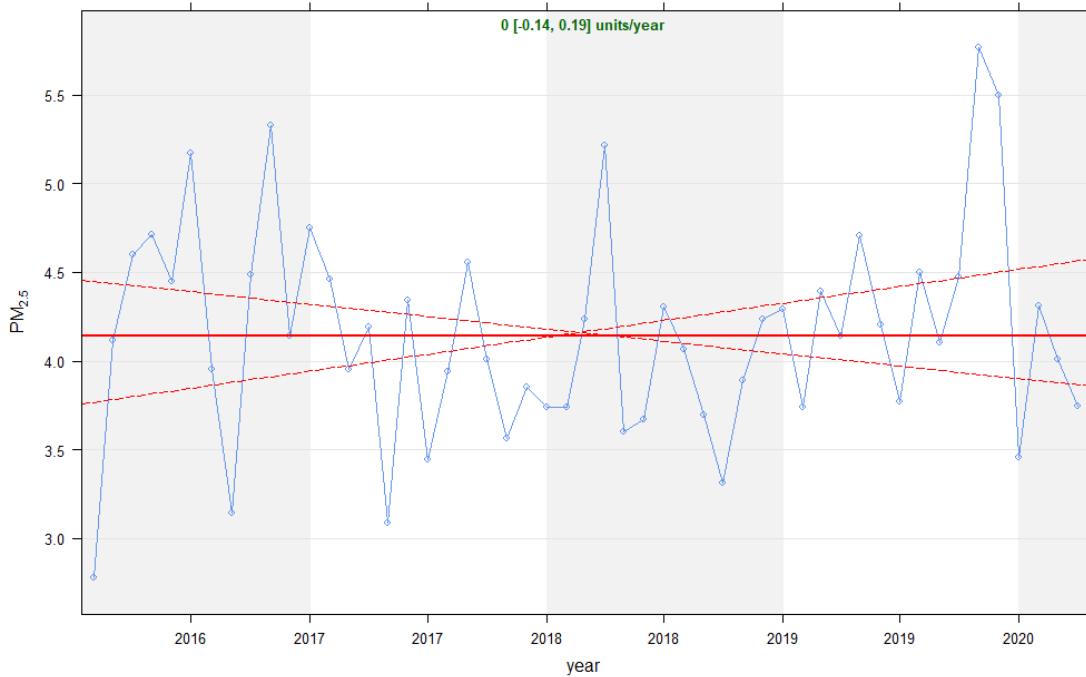


Figure 16 De-seasonalised monthly mean PM_{2.5} concentrations and Theil-Sen trend line for data from the Central School site between March 2016 and March 2020. Dashed red lines represent the trend lines containing the 95% confidence interval

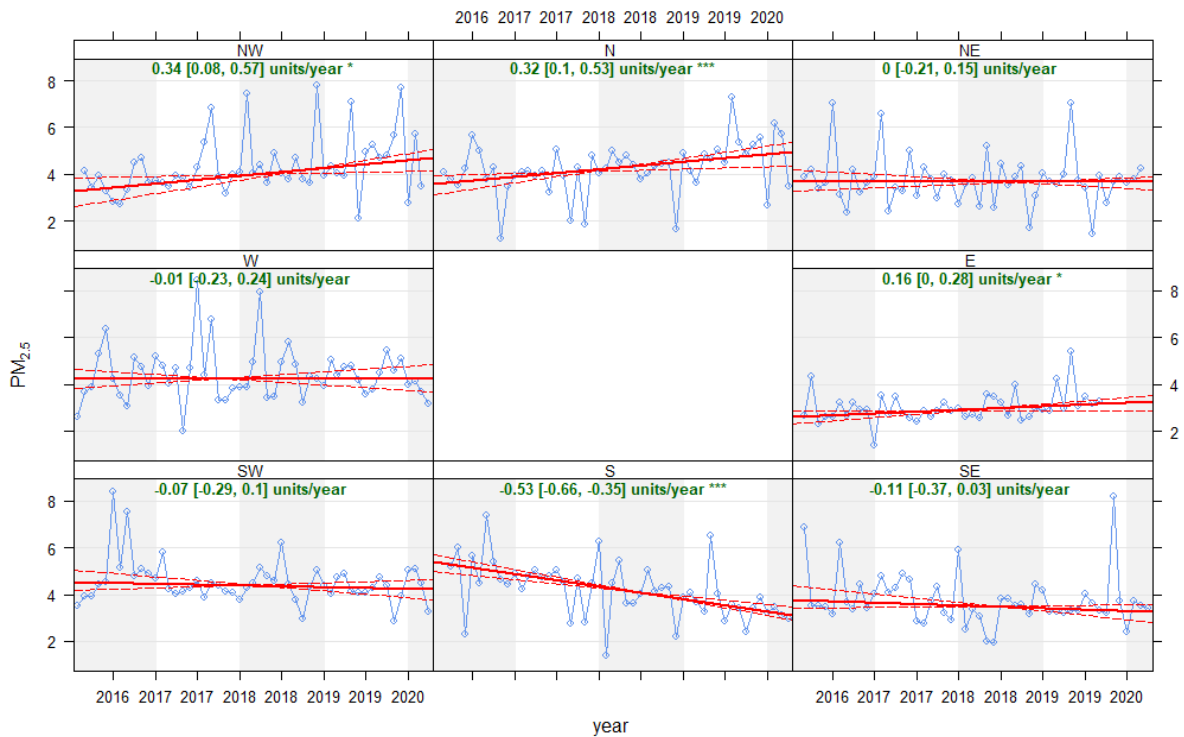


Figure 17 De-seasonalised monthly mean PM_{2.5} concentrations calculated from daily PM_{2.5} means, split by daily mean wind direction. Theil-Sen trend lines are shown in red, with dashed red lines representing the 95% confidence intervals

5 Identification of PM_{2.5} sources

The health risk posed by air-borne particulates is determined not only by the size of the particulates, but also their composition and the duration of time that people are exposed to them. Significant risk is posed not only through long term exposure to fine particulates, but also short term exposure to very high concentrations (WHO 2013). In addition, the specific composition of fine particulates can be a determining factor in the health risk that they pose. While traffic and industrial related combustion products are perhaps the most-investigated contributors to PM levels, studies have shown that the products of burning organic matter are no less harmful. In contrast, exposure to marine aerosols and other natural particulates has been shown to have minimal health effects compared to exposure to the same level of combustion sourced PM (WHO 2013). It is therefore of interest to not only monitor overall PM levels, but also to identify what sources are contributing to the measured levels.

5.1 Regional sources of PM_{2.5}

One emissions inventory has previously been undertaken in Taranaki, during 1998 (Kuschel and Petersen, 2000), wherein the relative contribution of different sources to PM_{2.5} emissions in the region were estimated. Here, domestic heating, industry and motor vehicles were identified as sources, contributing 50%, 32% and 18% of total PM_{2.5} emissions, respectively. Importantly, however, this inventory did not include natural contributors of PM_{2.5} such as sea spray, secondary sulphate. The following is thus an updated brief overview of the sources of PM_{2.5} that may impact air quality in the New Plymouth area.

5.1.1 Emissions from home heating

The National Air Emissions Inventory 2015 (Emission Impossible Ltd, 2018), found that in 2015 residential emissions made up 33% of all anthropogenic PM_{2.5} emissions recorded nationally. This figure increases during winter months, when home heating is most prevalent, and represents the largest single contributor to PM_{2.5} pollution nationally.

While these national figures provide a good overview, included in them are a number of emission sources that are predominantly rural. The contribution of home heating emissions to overall PM_{2.5} levels in urban areas can thus be expected to be more significant than the national figure implies. Indeed, local emission inventories commissioned by various regional councils indicate that home heating can be responsible for up to 91% of PM_{2.5} measured on winter days (MfE, 2018).

The 2018 census found that wood burners were the most common form of home heating used in the Taranaki, with 43.1% of households using one as their primary source of heating (compared to 32.3% nationwide). A further 0.8% of households in Taranaki use pellet fires or coal burners as heating sources. The use of coal for home heating is much lower in Taranaki than in the South Island. Given that the majority of emissions from home heating is finer particulates, it can be expected that they will be a significant contributor to New Plymouth's overall PM_{2.5} levels. This is especially so during winter, when the effects of the heavy use of wood burners can be exacerbated by meteorological conditions.

The composition of the PM produced in home heating emissions is also a cause of concern, with benzo(a)pyrene, a known carcinogen, being a product of the incomplete combustion of organic matter. In addition, emitted PM can include heavy metals if treated timber (arsenic) and painted timber (lead) are burned.

5.1.2 Traffic and road emissions

Along with being a significant source of carbon monoxide and nitrogen oxide emissions, motor vehicles are also a source of particulate matter, with emissions from on-road vehicles found to be the most important non-biomass combustion source of PM nationally (MfE, 2018). In addition to emissions from vehicle

exhaust, further PM is generated by the wearing and abrasion of the road surface, vehicle tyres, and brake pads. Although, the PM generated in these cases is mostly coarser particles, a certain fraction will be within the PM_{2.5} range. These emissions are generally localised to near the road and its surface, however in windy and gusty conditions, the PM can be re-suspended and influence air quality across a larger area. Such emissions have been found to be sources of heavy metals such as zinc, cadmium, barium and copper. The National Air Emissions Inventory 2015 (Emission Impossible Ltd, 2018) found that nationally, on-road vehicles and road dust contributed 9% and 2% of anthropogenic PM_{2.5} emissions, respectively. Comparatively, this is 1/3 of the quantity of emissions produced by home heating.

New Plymouth has relatively low traffic volumes in comparison to many other urban areas in New Zealand. The major traffic routes of SH45 and SH3 lie approximately 100-200 m to the NW, and 350 m to the NE, respectively, of the sample site. At this point, SH45 constitutes two one-way roads, each of which see around 14000-16000 vehicles per day while SH3 experiences around 13500 vehicles per day. Around 19% of this traffic is counted as being heavy vehicles (data from NZTA, averaged from annual 30-day surveys over the last 5 years). Traffic patterns on these roads has previously been shown to be relatively constant, with three clear peaks in traffic volume observed throughout a normal week day (morning, midday and afternoon). In contrast, a single, midday, peak is observed during weekends. Traffic focussed ambient air quality surveys have been previously undertaken by TRC at Port Taranaki (2012) and Bell Block Bypass (2014), with both surveys recording very low levels of PM_{2.5} (2.6 and 2.5 µg/m³, respectively). Interestingly both surveys found no evidence for a correlation between traffic volumes and PM levels, indicating that there is no strong relationship between a particular traffic density event and overall PM levels in this area. (TRC, 2012 & 2014). This indicates that the contribution from traffic is low by comparison with other, more dominant sources.

Traffic is considerably less on the roads directly adjacent the Central School monitoring site. NPDC traffic counts from October 2017 show that Gover St, which runs SE-NW past the monitoring site, has a daily average traffic count of 1800-1900 cars, with a maximum of 310-360 cars experienced between 8 and 9 am. Data from 2013 shows that Lemon St, running SW to NE past the monitoring site, has roughly half the average traffic count (940), with a maximum of 170 vehicles between 5 and 6 pm. Given the monitoring site is located on school property, the traffic on these roads could be expected to show peaks in traffic around school drop off and pick up times (8-9 am and 3-4 pm), as well as evening traffic.

5.1.3 Industrial emissions

Emissions from industrial and trade operations in the region require discharge permits for their activities. There are currently around 350 resource consents for air discharges in the Taranaki region, most of which are for companies in the oil and gas sector, and lie outside of the New Plymouth area. The closest permit holders to the Central School monitoring site are clustered in two areas; around Port Taranaki, approximately 4 km to the West, and the lower Waiwhakaiho area, 3-5 km to the North-East. Air permits range from landfills and wastewater treatment plants, to chemical processing, and port operations. A map and list of the closest consent holders to the monitoring site is given in Appendix III.

In general, while individual industrial or trade operations may have comparatively significant effects on air quality in their immediate local surroundings (noting that consent conditions restrict effects to minor or less), they are not often regionally significant. It is worth noting, however, that an ambient air quality survey undertaken at Port Taranaki in 2018 showed that PM_{2.5} levels in the immediate vicinity of activity can border WHO regulations thresholds during operational times (TRC, 2018). However, given the coastal environment, this should not be taken as pinpointing any or all industrial activities as the cause (see 4.1.4 below). Meanwhile, permit holding companies in the Lower Waiwhakaiho area demonstrated a high level of environmental performance during compliance assessments undertaken in 2018-2019 (TRC, 2020).

5.1.4 Natural sources of PM_{2.5}

Natural sources of PM can include, but are not limited to, sea salt, windblown dust, pollen, and secondary sulphur from oceanic phytoplankton. Unlike anthropogenic sources of PM, natural sources cannot be managed, and so require special consideration in air quality studies. New Zealand is an island nation with 15,000 km of coastline, and as such, sea salt has been shown to be the largest natural contributor to PM levels nationally. Given Taranaki's location on the West Coast, it should be noted prevailing winds from the western hemisphere can generate and carry significant levels of sea salt, along with other marine aerosols.

The results of previous PM₁₀ studies undertaken by TRC show that sea salt is a major contributor to overall PM₁₀ levels (TRC, 2004, 2010). While sea salt, and other natural PM, are generally coarser particulates, they can still be a significant contributor to PM_{2.5} levels. Nationally, marine aerosols have been found to make up an average of 21% of total PM_{2.5} levels on days where there is no exceedance of WHO guidelines (MfE, 2018). The proportional contribution is significantly less on days with exceedances, being 3%. This indicates that while sea salts may contribute greatly to background levels of PM_{2.5}, nationally they are not responsible for peak pollution events.

5.2 Elemental analysis of filters

In order to try and further determine what sources of PM_{2.5} are prevalent in New Plymouth at different times, and in various weather conditions, seven sample EBAM filters, including one blank, were sent to the University of Auckland for elemental and scanning electron microscopy (ScEM) analysis. Each EBAM filter holds the total PM_{2.5} deposited throughout one day, and thus give a snapshot of what sources of PM_{2.5} were present on that day. Samples were mostly selected from days with higher than average levels of PM_{2.5}, with one sample chosen from an 'average' day, to give an idea of the constituents of background PM_{2.5} in the area.

Overall, the filters were found to fall into two categories, examples of which are given in Figure 18 and Figure 19. Optically lighter filter samples show an increase in calcium and other salt deposits, with electron microscopy photos clearly showing the crystal like structure of these particulates (Figure 19). Meanwhile the optically darker filter samples showed higher carbon and nitrogen content. In images from these filters, the particulates have a 'fluffy' morphology, indicative of being hydrocarbon particulates, and consistent with being soot (e.g. Figure 18). None of the samples analysed contained any fungus or pollen.

The results of the elemental analysis of filters match well with the observations already made regarding PM_{2.5} concentrations and wind patterns, and allow the identification of two of the main contributors to overall PM_{2.5} levels. The report from the elemental analysis can be found in Appendix II, while the full set of figures comparing the elemental composition results from each filter with the wind patterns recorded on each day are given in Appendix V. It is noted that the filters are Silicon based, so the high levels of Silicon recorded are omitted from analysis.

5.2.1 Home heating

It was found that the two darkest filters, which show elevated levels of carbon and nitrogen, both correspond to winter days where the wind has calmed into a still evening (04/07/2016 and 16/06/2017). As seen in Figure 18, while PM_{2.5} levels are low throughout the day, concentrations peak in the evening as cool and calm conditions lead to temperature inversions and increased atmospheric stability, exacerbating the effect of emissions from home heating.

The results agree with previous findings from this survey, and confirm that the higher overall levels of PM_{2.5} observed in the winter months, and in particular, the significant evening peak observed in the diurnal trend, are due to domestic heating. The findings also agree with the negative correlation found between offshore

wind speed and PM_{2.5} levels during colder months, in that the effect of PM_{2.5} emissions from home heating are exacerbated on calm evenings when temperature inversions are at their strongest.

Neither of the two filters displaying high PM_{2.5} concentrations from home heating show any sign of arsenic above the detection limit. There is thus no evidence of copper chrome arsenate (CCA)-treated timber being used in domestic solid fuel heaters. However, given that the home heating PM_{2.5} emissions recorded are likely from the area immediate to the monitoring site, it is possible that the burning of treated timber may remain an issue in other areas of New Plymouth.

5.2.2 Marine aerosols

The remaining sampled filters, including that taken as a background sample, are all notably optically lighter, with sodium chloride, calcium, and other salt deposits found to be evident on the samples. These samples, which all show similar elemental compositions, are taken from varying times of the year, giving no evidence of the main sources being seasonal. Wind patterns for each sampled day show that onshore winds of varying strengths predominated all day (Appendix V). The results of these filter analyses, when combined with the observation that elevated PM_{2.5} levels are often observed with stronger winds from the western hemisphere, suggest that such periods of elevated PM_{2.5} concentrations may be due to increased levels of marine aerosols. Given the presence of sodium chloride and other sea salts on the background filter sample, it can be suggested that marine aerosols are also a major contributor to background PM_{2.5} concentrations. These observations mirror the results of previous PM₁₀ monitoring studies undertaken in New Plymouth, where it was observed that air quality in the region varies significantly dependent on wind direction, with sea salts being a main contributor to overall levels.

While marine aerosols are predominantly larger than the PM_{2.5} fraction, given New Plymouth's coastal location, exposure to strong westerly winds, and generally low total PM_{2.5} concentrations, it is possible that marine aerosols contribute proportionately more to overall PM_{2.5} levels in New Plymouth than in other cities and settings.

5.2.3 Other contributing sources

With the exception of the background sample, there was a relatively constant presence of Sulphur recorded across the 6 filters analysed, with spot analyses showing that this was frequently as a constituent of Calcium Sulphates. Given the exposed coastal setting of New Plymouth, it is suggested that the sulphur recorded is more likely to be due to secondary sulphates, rather than being traffic generated. The lack of sulphur recorded on the background filter sample, together with the comparatively low levels of both overall, and particularly diesel, traffic in the area lend weight to this theory. Potential sources of secondary sulphate could be marine phytoplankton activity and shipping activity at the port. However, due to the low levels of sulphates measured, along with the small number of filters analysed, a firm source identification cannot be made without a more thorough source apportionment study.

Similarly, the source of nitrates present on a number of the filters is difficult to firmly identify within the scope of this survey. The relatively constant levels recorded on filters at different times of the year may suggest that the source is not seasonal, however this is difficult to confirm without more intensive sampling and analysis. Potential sources of nitrates, aside from soot from home heating, include traffic emissions, or wind-blown fertilizer from the agricultural areas inland of New Plymouth. The latter of these could be expected to be seasonal, whereas traffic emissions are relatively constant throughout the year.

Along with sulphur and nitrogen, a number of other elemental components are consistently identified in low percentages on all or most of the filters. However, given the inevitable overlap in elemental composition between different potential sources of PM_{2.5}, it is impossible to firmly identify the sources of these particulates without a detailed and in depth source apportionment study. Such an investigation is outside the scope of this report.

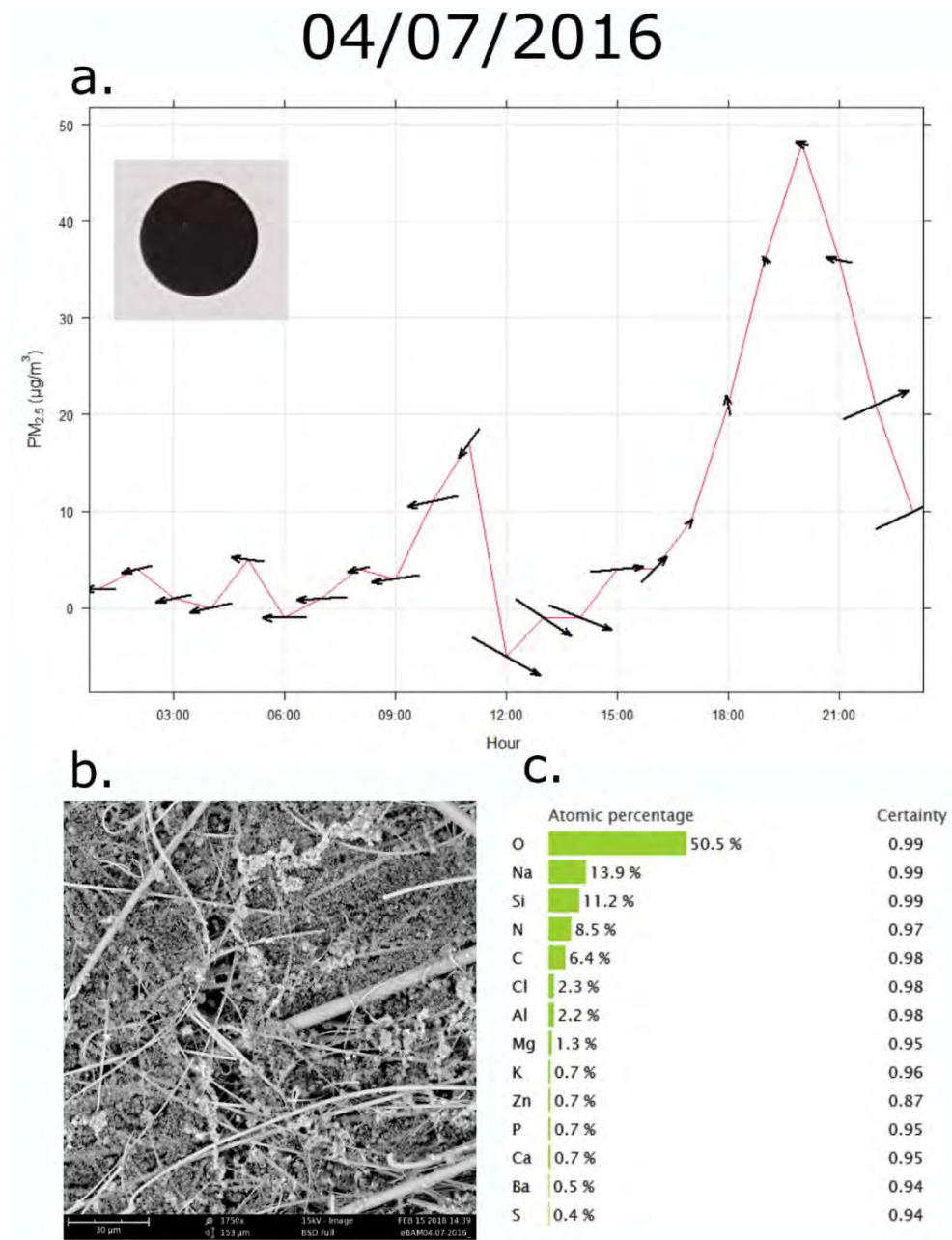


Figure 18 ScEM analysis of the EBAM filter from 4th July 2016, when a mean PM_{2.5} concentration of 10 µg/m³ was recorded. (a) Variation of PM_{2.5} concentration through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo, clearly showing a 'fluffy' morphology, consistent with being organics. (c) Percentage elemental composition of a region of the filter sample, which shows elevated content of sodium chloride and organic particulates

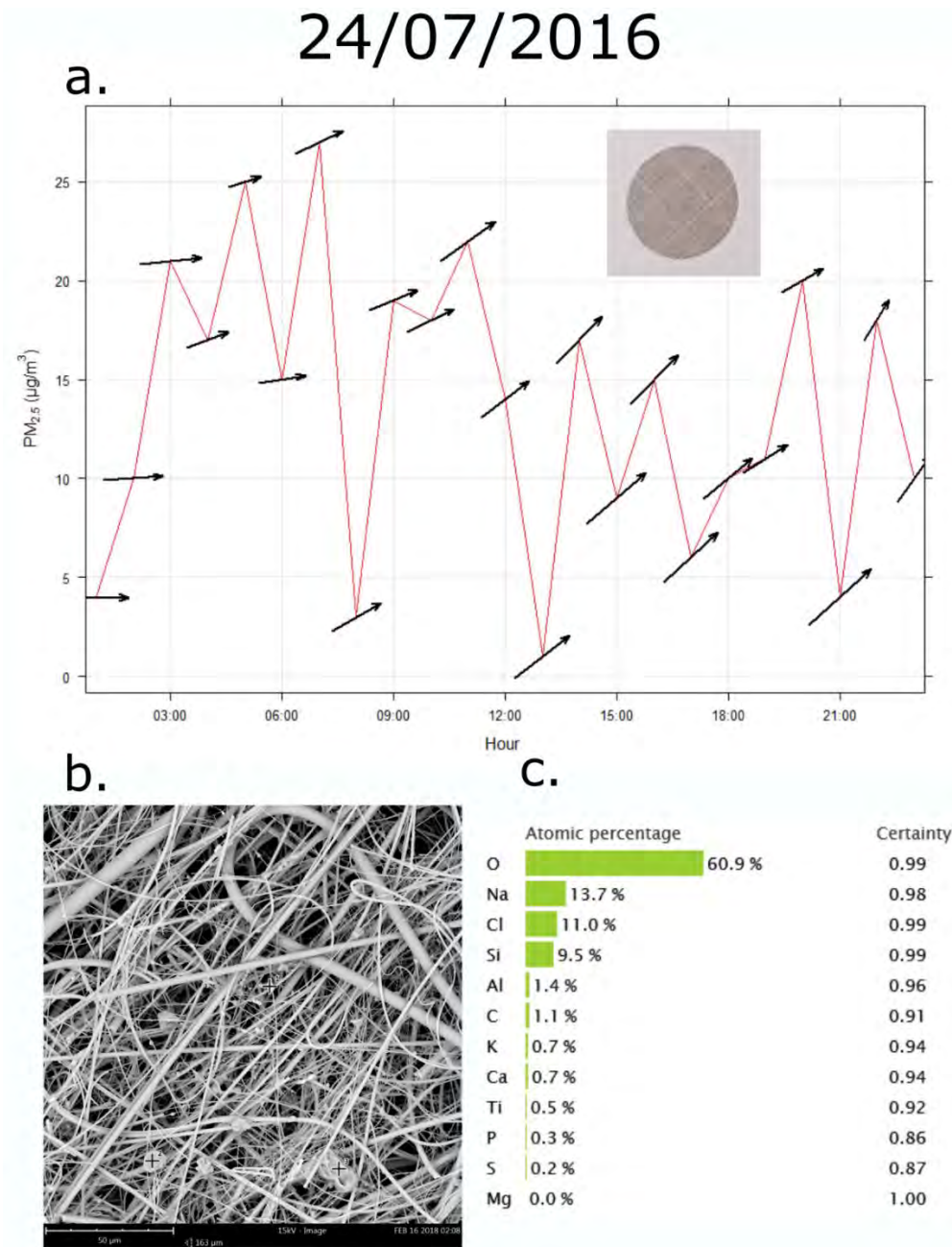


Figure 19 ScEM analysis of the EBAM filter from 24thth July 2016, when a mean daily $PM_{2.5}$ concentration of $14 \mu\text{g}/\text{m}^3$ was recorded. (a) Variation of $PM_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo, with three spots of salt crystals identified with black + symbols. (c) Percentage elemental composition of one spot of the sample, Spots analysis showed the presence of chlorides, calcium sulphate, nitrate salts and calcium salts

6 Discussion

6.1 Summary

Overall, the results of this survey, and all regional monitoring to date, show that Taranaki has very clean air, with no significant pressures upon the quality of the air resource on a regional basis. PM_{2.5} concentrations are consistently very low in New Plymouth, with an annual mean of 4 µg/m³ recorded throughout the entire monitoring period, well below the threshold of 10 µg/m³ set by WHO. 96% of days in the monitoring period were categorised as having 'Excellent' or 'Good' PM_{2.5} levels, with the remaining 4% falling into the 'Acceptable' category. There were no exceedances of WHO's daily mean threshold of 25 µg/m³.

Analysis of the PM_{2.5} measurements recorded at Central School show PM_{2.5} levels at the site are dependent on a combination of wind direction and wind speed. Higher levels of PM_{2.5} are recorded year round in the presence of medium to strong onshore winds. In contrast, low concentrations of PM_{2.5} are recorded when there are medium to strong offshore winds.

This is consistent with sea spray and its constituent salts being a major contributor to PM_{2.5} levels in the region, a result which agrees with the findings of both previous regional PM₁₀ monitoring surveys, and national PM_{2.5} surveys.

A strong seasonal trend is observed in PM_{2.5} levels due to domestic heating in the colder months. The increase in PM_{2.5} concentrations recorded due to domestic heating emissions is correlated with cold calm evenings when the dispersal of pollutants is reduced by stable atmospheric conditions which result in temperature inversions. While no exceedances of the WHO recommended daily limit were recorded at the monitoring site, it is possible that the effect of domestic heating emissions is greater in other localised areas in the region. Such vulnerable areas include non-coastal sites and sheltered valleys. Here, air drainage from the surrounding higher land may lead to stronger temperature inversions and an increased level of trapped PM_{2.5} emissions near ground level.

Higher background PM_{2.5} levels are recorded in November through January, which may be due to the increased frequency of north-westerly winds during this period. The monitoring site lies around 650 m south-east of the coast at its nearest approach. Winds from the north-west are thus likely to hold a higher concentration of marine aerosols when they reach the monitoring site compared to onshore winds from other directions.

While it is probable that traffic emissions and secondary sulphate contribute to PM_{2.5} levels in New Plymouth, due to the low overall levels of PM_{2.5} in the region, it is difficult to quantify these contributions. The results of this survey, together with those of previous inhalable particulate surveys undertaken at traffic sites in New Plymouth, indicate that the contribution to overall PM_{2.5} levels from traffic sources is likely much less than that from both marine aerosols and domestic heating. There is no evidence of a significant contribution to regional PM_{2.5} levels from industrial emissions. A detailed source apportionment study would be required in order to further quantify the contributions from these, and other, sources.

6.2 Covid-19, lockdown and PM_{2.5} levels

On March 26 2020, New Zealand entered a state of national lock-down in an effort to stop the spread of the Covid-19 coronavirus. With strict travel restrictions and the shutdown of most industries, there should be a corresponding significant decrease in emissions that are from traffic and industry sources, although obviously not for natural sources. Indeed, lockdowns elsewhere are noted to have resulted in considerable drops in air pollution in large cities around the world. The measured records from this study were thus analysed to see if there is a drop in overall PM_{2.5} levels coincident with New Plymouth going into lockdown and traffic and industry activity greatly reducing. Unfortunately, the measured PM_{2.5} records end on the 10th

of April, 16 days after lockdown was entered, when the pump on the E-BAM instrument failed, meaning that analysis of the full 4.5 weeks of lockdown is not possible.

When daily mean PM_{2.5} levels are compared throughout March and April 2020 (Figure 20), it is seen that there is a decrease in levels coincident with the start of lock-down on March 26th. However, this drop in daily mean PM_{2.5} is also coincident with a change in weather system, with a period of prevailing south-easterlies immediately following the beginning of lockdown. Given that very low PM_{2.5} concentrations are often recorded when there are prevailing moderate to strong south-easterly winds, it is impossible to distinguish if, or how much, the drop in anthropogenic emissions due to lockdown contributes to the overall observed drop in PM_{2.5} levels. However, when PM_{2.5} levels are compared over the same time period for each year of the monitoring survey (Figure 21), it is seen that the levels recorded during lockdown are within the same range recorded during other years. There is, thus, no evidence that the Covid-19 lockdown resulted in significantly reduced PM_{2.5} levels in New Plymouth.

Throughout the COVID-19 corona pandemic, it has become apparent that many of the pre-existing medical conditions that increase the risk of death in COVID-19 patients are the same diseases that are caused or exacerbated by long-term exposure to fine particulate air-pollution. While the situation is still developing, and such studies are in their early days, a cross-sectional nation-wide study of data from the USA indicates that even a small increase in long-term exposure to PM_{2.5} is linked to a large increase in COVID-19 mortality rates (Wu et al. 2020). In the report, an increase of 1 µg/m³ in PM_{2.5} was associated with an 8% increase in the COVID-19 death rate (with a 95% confidence interval of 2-15%). Such findings highlight the detrimental health effects of long-term exposure to fine particulate matter, and the importance of air quality regulations and monitoring to ensure that regional fine particulate levels are kept as low as possible.

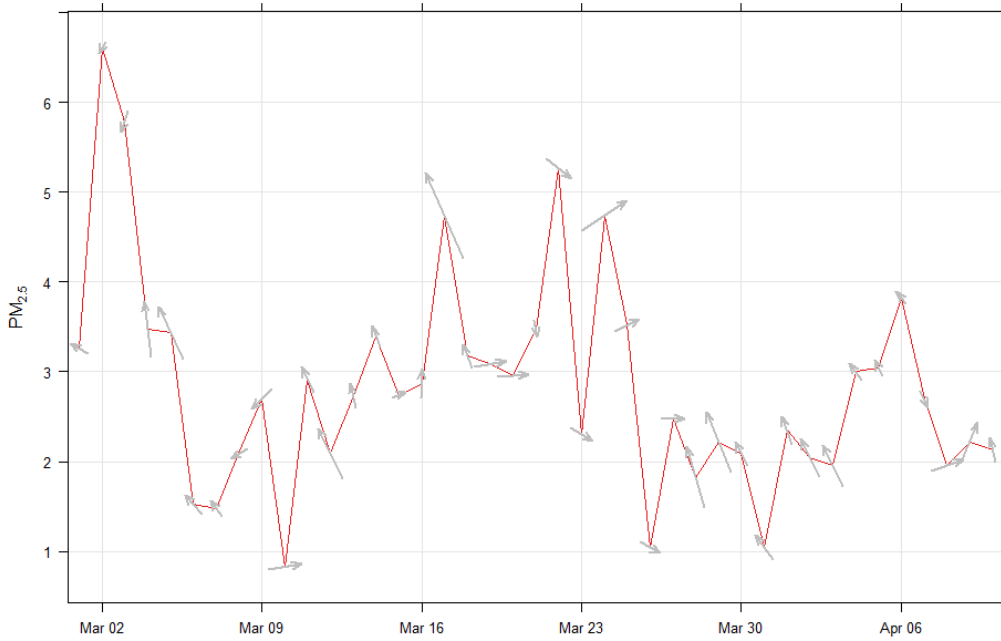


Figure 20 Daily mean PM_{2.5} concentrations from March 1st – April 10th 2020, with mean daily wind vectors overlaid

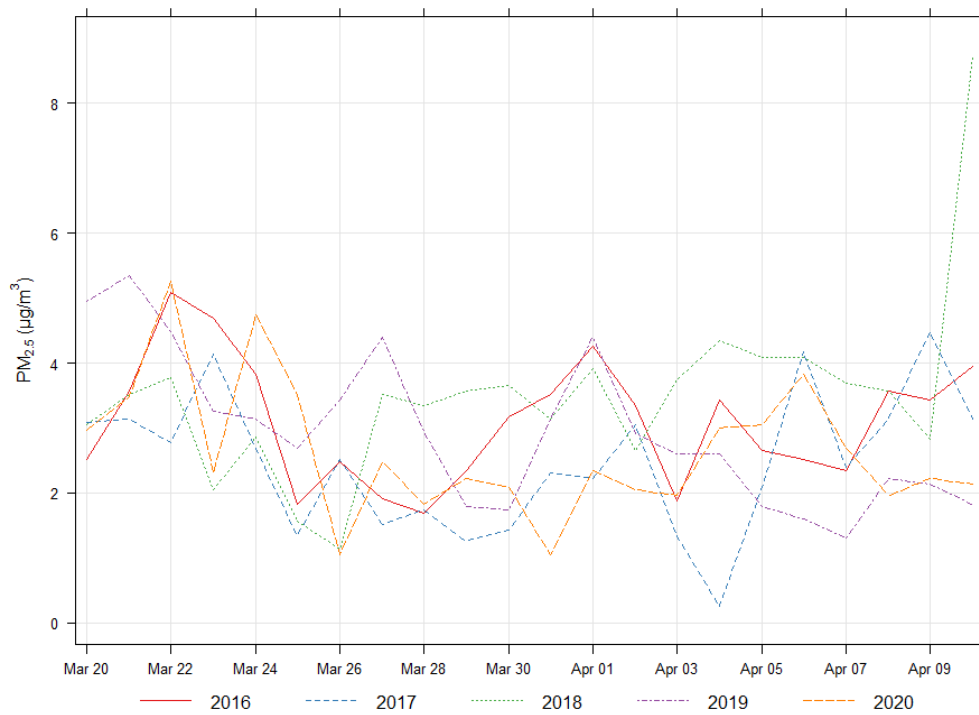


Figure 21 Daily mean PM_{2.5} concentrations during the period March 20th - April 10th for each year of the monitoring survey

7 Recommendations

1. THAT it be noted that Taranaki Regional Council has now carried out continuous gathering of PM_{2.5} data in New Plymouth's CBD for a period of 4 years, spanning February 2016 – April 2020.
2. THAT it be noted that PM_{2.5} monitoring of ambient air in New Plymouth has shown low mean PM_{2.5} concentrations, with no exceedances of WHO recommended thresholds.
3. THAT it be noted that sea spray is a major contributor of PM_{2.5} in the Taranaki region year-round, with domestic heating also being a significant contributor during winter months.
4. THAT the Taranaki Regional Council continues to conduct continuous monitoring of PM_{2.5} in New Plymouth.
5. THAT the Taranaki Regional Council undertakes investigative monitoring of winter PM_{2.5} levels in vulnerable areas such as sheltered urban valleys, where worst-case PM_{2.5} levels are likely due the combination of home-heating emissions and strong temperature inversions.

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Appendix I

Memorandum of Understanding between TRC and Central School Te Kura Waenga O Ngāmotu

COPY

Memorandum of Understanding

Dated: 8 October 2018

PARTIES:

Taranaki Regional Council (the TRC), of 47 Cloten Road (Private Bag 713), Stratford,
and

Central School Te Kura Waenga O Ngāmotu (the School), of 40 Lemon St, New Plymouth, 4310

Background

- A. Regional Councils monitor air quality in accordance with the National Environmental Standards for Air Quality (Air Quality NES) and the World Health Organisation (WHO) guidelines. The Taranaki Regional Council monitors, evaluates and responds to ambient air quality conditions and trends in the Taranaki region. The Council, therefore, has been seeking support from the Taranaki community for continuation of the ambient monitoring and data collection. In 2016, the TRC deemed it desirable to enter into an agreement with the School for the purposes of performing an ambient air quality monitoring study at a site representing urban New Plymouth.
- B. The School provided an adequate location and space of at least two (2.0) square meters for the installation and construction of, and electrical power to the TRC for operation of, one temporary Air Quality Monitoring Station (the AQM Station) and its accessories, to operate and maintain the same within the said space, free of charge for the duration of the agreement.
- C. On 26 February 2016, the TRC, at its own cost and expense, installed the AQM Station on the School's property. The AQM Station is a very delicate scientific equipment, which monitors particulate matter PM 2.5. The monitoring information gathered by the TRC is valuable for both Taranaki and New Zealand, as it is used by the Ministry for the Environment in its reports on levels of PM 2.5 pollution in airsheds across the country.
- D. Prior to installing the AQM Station, the TRC received prior verbal approval of the AQM location from the School's Principal and prior written approval from the School's Board of Trustees dated 26 August 2015.
- E. The TRC paid for the purchase and installation of a surveillance camera (on top of the wall under the roof of the School's building) facing the AQM Station to be able to receive a relevant CCTV footage from the School as necessary.

1. Purpose

The parties agree to enter into this Memorandum of Understanding (the MOU) to formally define their mutual understanding and obligations in regards to the AQM Station installed.

2. Term

This MOU will commence on **8 October 2018** for a period of five (5) years, and end on 8 October 2023, unless sooner terminated by the TRC or School pursuant to the provisions of this MOU.

This MOU may be renewed or extended subject to agreement between the TRC and the School.

3. TRC's Responsibilities

- 1) At its own cost and expense, except as provided herein, operate, maintain, conduct inspections and remove the AQM Station on the School's property.
- 2) Record continuous fine particulate (PM 2.5) observations.
- 3) Use all reasonable endeavours to make the annual air quality monitoring reports, based on the data collected from the AQM Station, available through the TRC's webpage www.trc.govt.nz.
- 4) The TRC shall assume costs for the AQM Station's troubleshooting, repair and maintenance.
- 5) Provide monetary compensation for the use of electricity by the AQM Station in the amount of \$109.50 annually (based on approximately 30 cents per day).
- 6) All equipment related to the AQM Station, and all data obtained from the AQM Station, is owned by the TRC.
- 7) When accessing the AQM Station during school hours (8:00am – 4:00pm), the TRC's staff and/or supervised contractors are required to sign in and out at the School Office.
- 8) No vehicles shall be brought onsite by the TRC's staff and/or supervised contractors during school hours without prior communication with the School.

4. School's Responsibilities

The School shall continue to:

- 1) Allow the TRC to operate and maintain the AQM Station within the allocated space, free of charge for the duration of this MOU.
- 2) Provide the TRC with, and invoice annually for the amount of \$109.50 for, the electrical power to support the AQM Station for the duration of this MOU.
- 3) Allow the TRC's staff and supervised contractors reasonable access to the AQM Station for the calibration, maintenance and routine air monitoring activities. The TRC staff member(s) will normally need to visit the AQM Station approximately once a month for about one hour.
- 4) Promptly notify the TRC of any AQM Station's visible damage.
- 5) Promptly provide a footage of the surveillance camera facing the AQM Station, when and as requested by the TRC.
- 6) Provide the TRC with a copy of the up-to-date School's Health and Safety Policy and any specific Health and Safety requirements related to the location of the AQM Station.

5. Police Vetting for the property-related workers

The TRC will ensure that any Officer that requires access to the School for monitoring purposes will have been through a Police vetting check and will have been given a full clearance. The TRC will meet the costs associated with these checks, will ensure checks remain current, and are completed prior to any access to Central School.

6. Termination

This MOU may be terminated by either party by giving written notice at least twelve (12) months prior to the effective date of termination, or otherwise by mutual agreement.

Upon termination, whether due to expiration of the Term or as a result of agreement of the parties, the TRC shall remove all equipment related to AQM Station from the School's property and restore such property to a condition as good as it was when the TRC first took occupancy, within thirty (30) calendar days after the termination or expiration of this MOU.

7. Communications

The following persons shall be the contact persons for all communications regarding the performance of this MOU:

For the **Taranaki Regional Council**: Brian (Vladislav) Cheyne, Environmental Scientist - Air Quality), phone: (06) 7657127, email: Brian.Cheyne@trc.govt.nz

For the **Central School Te Kura Waenga O Ngāmotu**: Juliet Ormrod, Principal, phone: (06) 7583240, email: principal@central.school.nz, with the Maintenance Officer copied in where suitable: bryan.sutherland@central.school.nz

8. Air Quality Education

As consideration for the School's performance under this MOU, the TRC agrees to provide to the School an educational Air Quality Programme directed to the School's students.

9. Health and Safety

The TRC operates a comprehensive Health and Safety system which all employees and supervised contractors are required to comply with. TRC Staff will also actively comply with the School's specific Health and Safety systems in place at the location of the AQM Station, and should be made aware of these requirements by the School.

10. General Provisions

Review: It is intended that this MOU is reviewable at any time as agreed between the TRC and the School.

Changes: Any changes to the terms and conditions of this MOU must be in writing, signed by the duly authorised representatives of the parties.

Assignment: Neither party may assign or delegate its rights or obligations under this MOU, in whole in part, without the express prior written consent of the other party.

Hold harmless: Each party to this MOU shall be responsible for its own acts and/or omissions and those of its officers, employees and agents. No party to this MOU shall be responsible for the acts and/or omissions of entities or individuals not a party to this MOU.

Force Majeure: No party is in breach of this MOU for any act, omission or failure to fulfil its obligations under this MOU, if such act, omission or failure arises from any cause reasonably beyond its control.


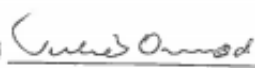
Applicable law: The law of New Zealand shall govern the interpretation of the MOU.

Compliance: The parties shall comply with all applicable laws, regulations and standards necessary for the performance of this MOU. The Parties shall comply with the terms and conditions of this MOU.

Disputes: Any dispute that may arise in the interpretation or implementation of this MOU shall be resolved amicably through mutual good faith negotiation and consultation.

Once signed, this MOU will replace all or any oral agreement previously reached between the parties.

Execution:

Signed for the Taranaki Regional Council:	Signed for the Central School Te Kura Waenga O Ngāmotu:
	
Basil Chamberlain Chief Executive B G Chamberlain Chief Executive Officer Taranaki Regional Council	Juliet Ormrod Principal
Date: 6/10/18	Date: 8/10/18

Appendix II

Phenom ScEM report from University of Auckland



ENGINEERING

20 February 2018

Brian Cheyne
Private Bag 713,
Stratford 4352

RCSMS, F&E
Room 143, 15 Wymara Street
Auckland, New Zealand
T +64 9 373 7589 x 87172
www.rcsms.auckland.ac.nz/en/rcsms.html
The University of Auckland
Private Bag 92019
Auckland 1142
New Zealand

Dear Mr Cheyne

Re: Phenom SEM examination of Filters

The 7 samples supplied by you were 6 sampling spots from glass filter tapes and a blank. The samples were all labelled "eBAM(PM2.5) then a code as follows:

Blank
2/04/2016
04/07/2016
24/07/2016
02/10/2016
22/01/2017
16/06/2017

RCSMS was asked to check for particles 0-2.5µm.

Preparation

A small portion was cut from the centre of each sample and attached to a standard SEM pin stub with double sided adhesive conductive carbon tape. The samples were coated with approximately 20nm of Pt to help reduce charging effects.

Analysis

The samples were analysed for both morphology and atomic % elemental composition with a Phenom ProX SEM operating in standard SEM mode.

Results and Conclusion

The optically lighter sample dots showed calcium/other salt deposits. The optically darker samples showed higher carbon and nitrogen content, the morphology of these darker samples indicating soot.

There was no fungus or pollen apparent on any of the samples.

Limitations

Soda glass will be present as a background in most analyses, so only the non-glass materials are highlighted.

Pt has been added to the samples deliberately so is present but ignored.

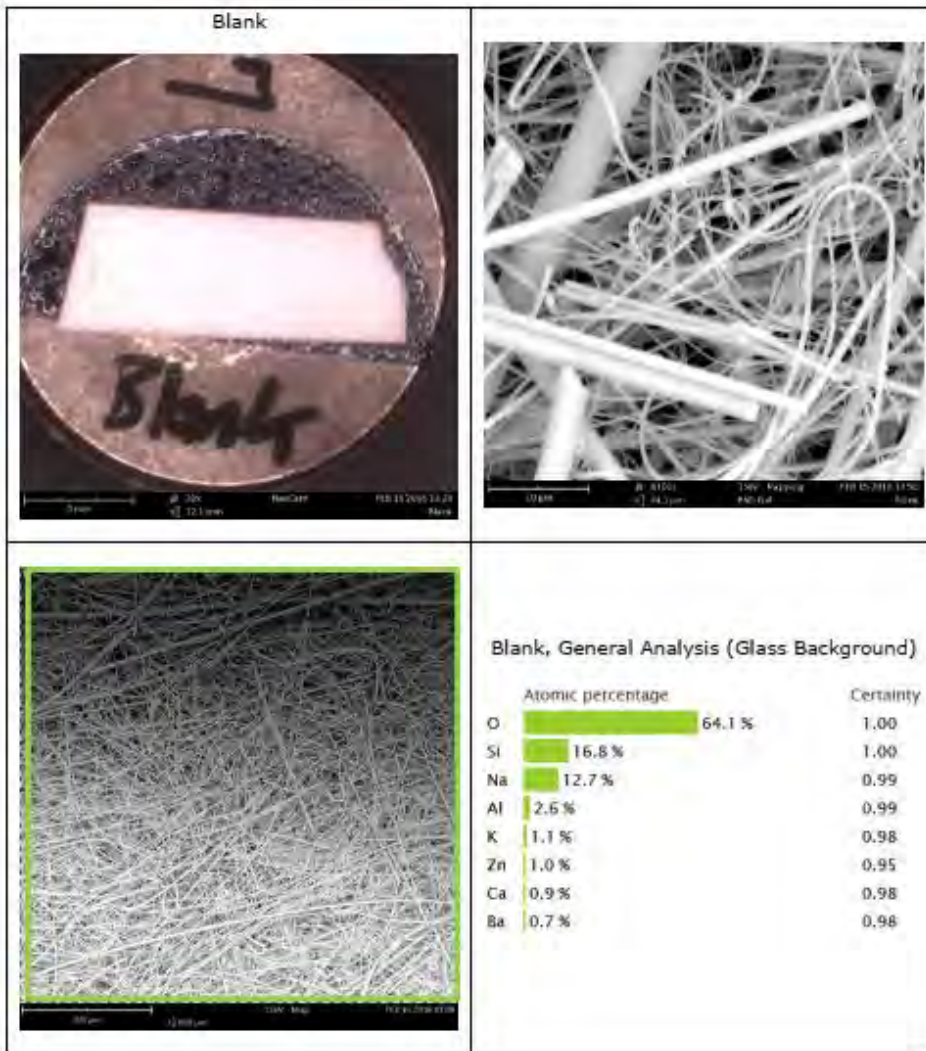
Legally privileged and confidential

Representative results are tabled below, and further supporting analyses have been supplied electronically along with this report.

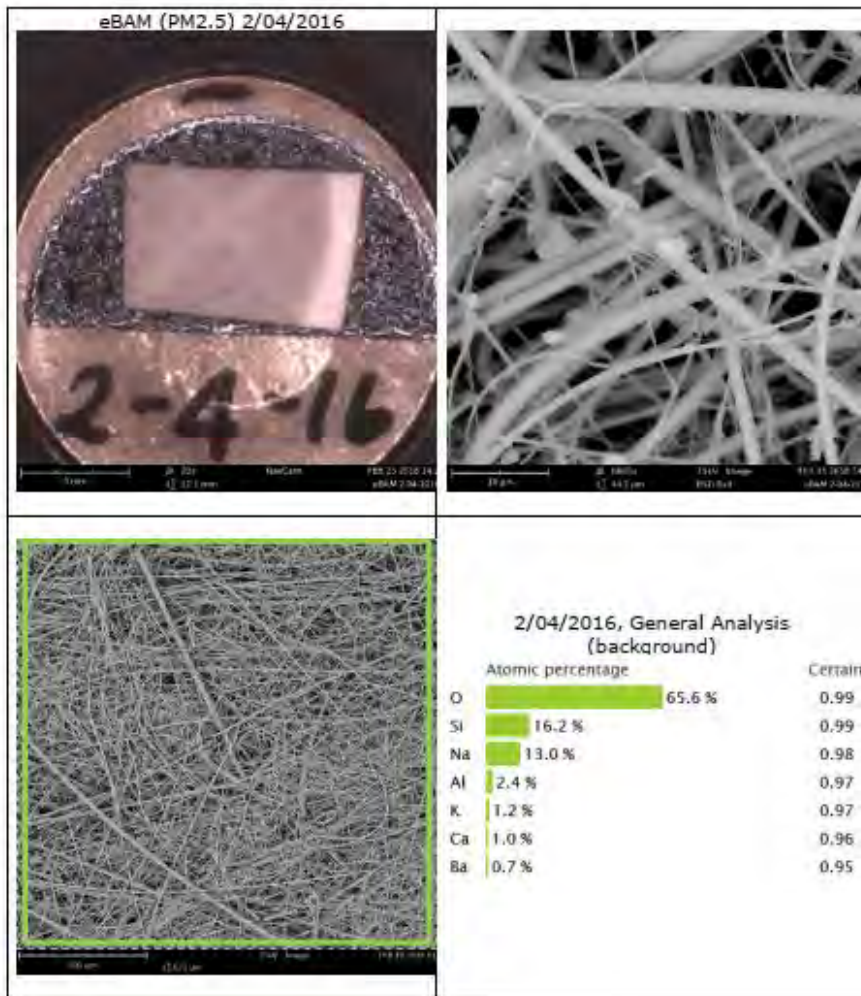
You are welcome to contact me should you have further questions regarding this analysis.

Catherine Hobbis
Technical Officer, RCSMS

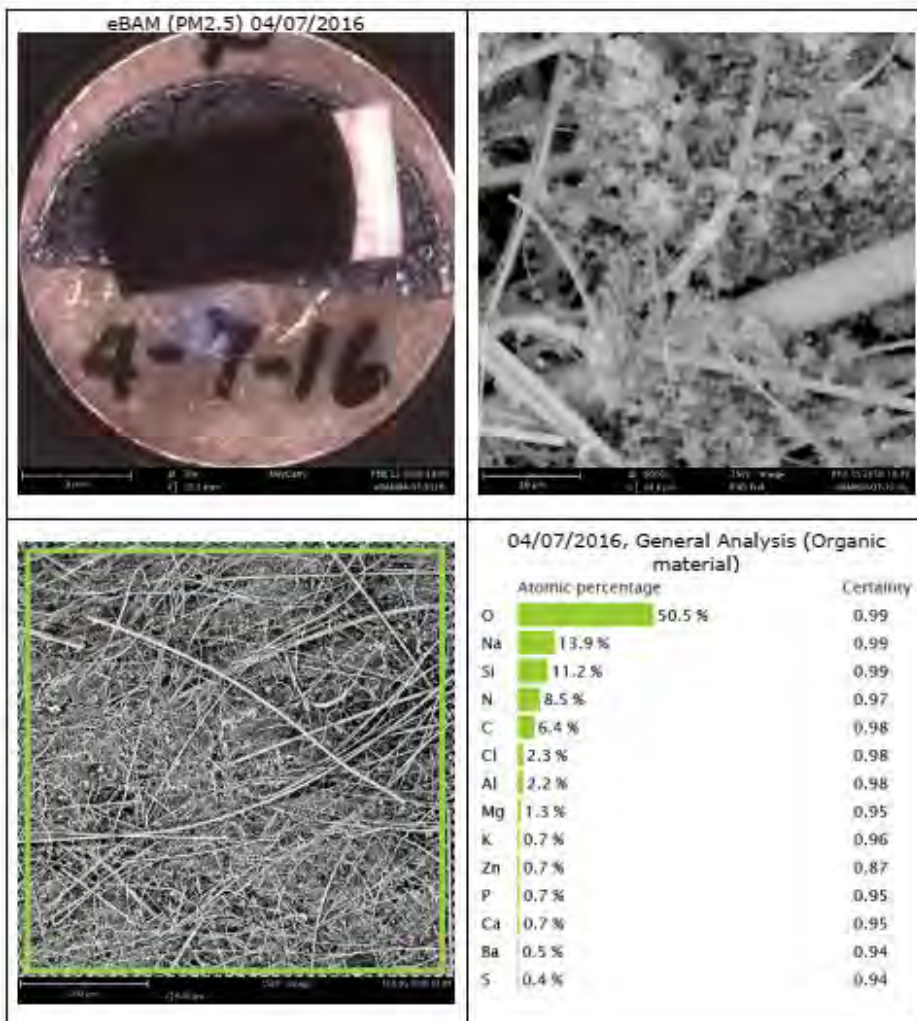
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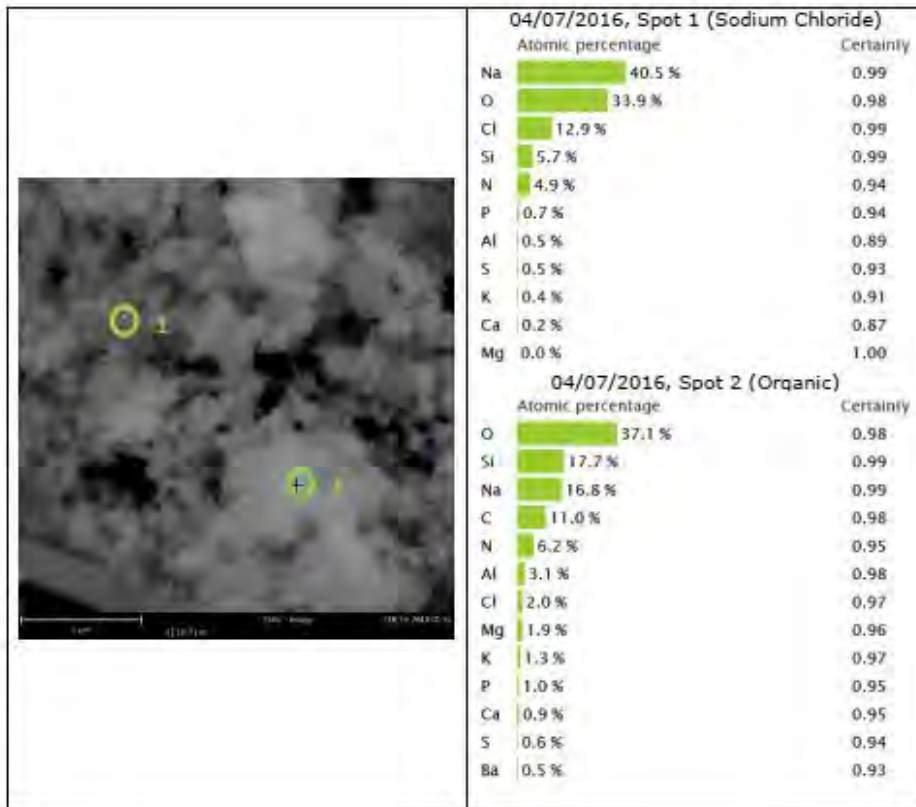
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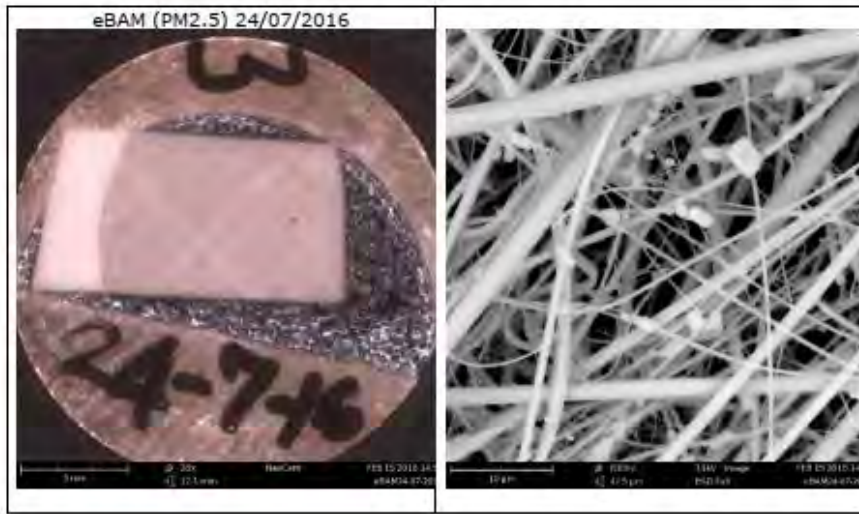
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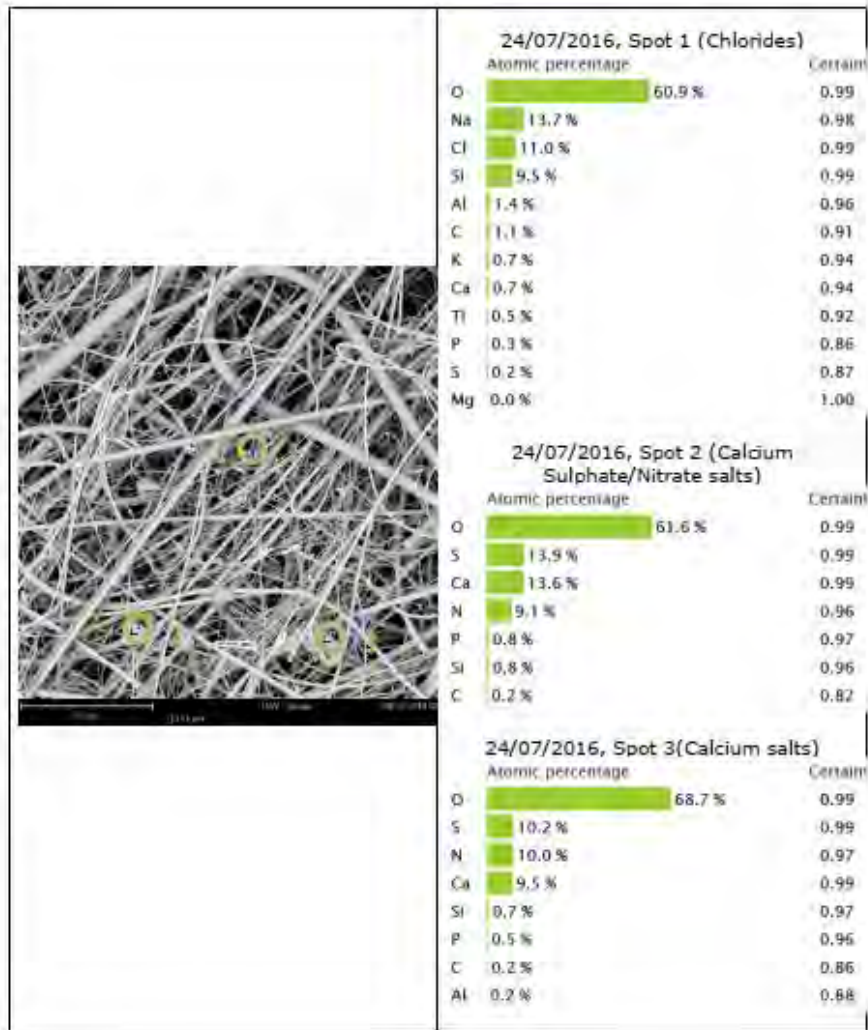
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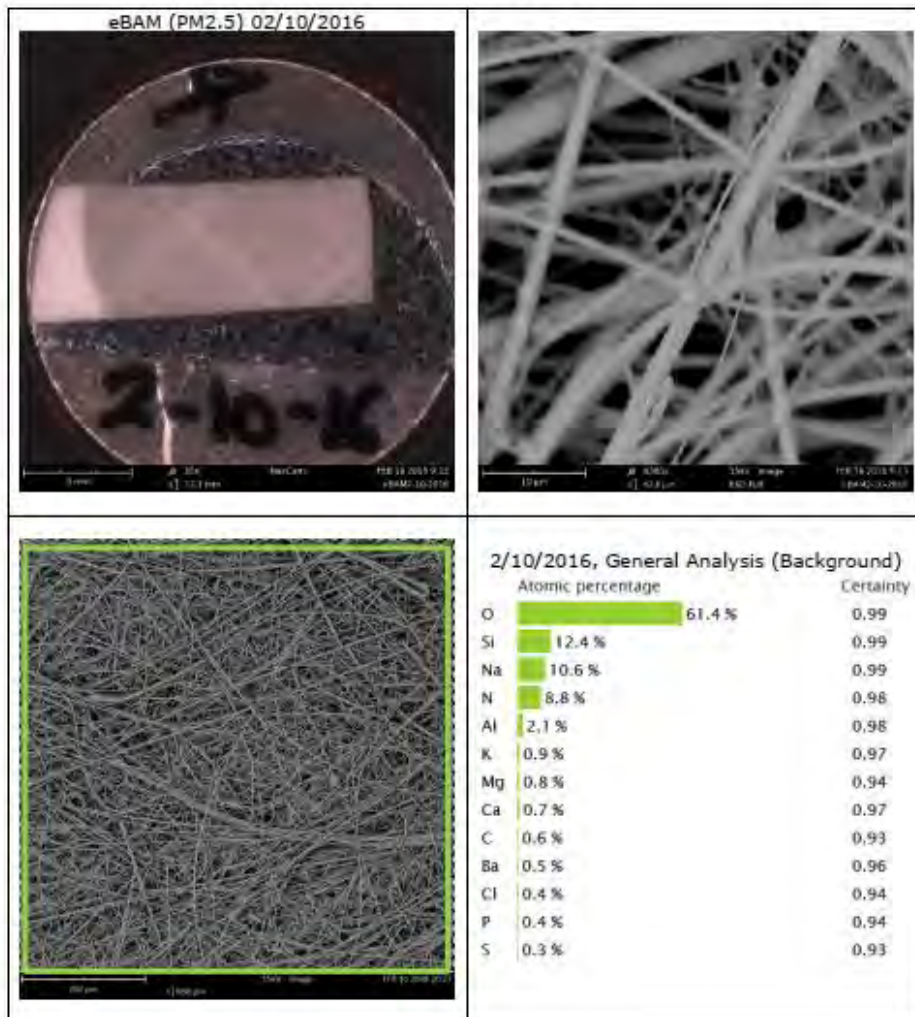
eBAM (PM2.5) 24/07/2016



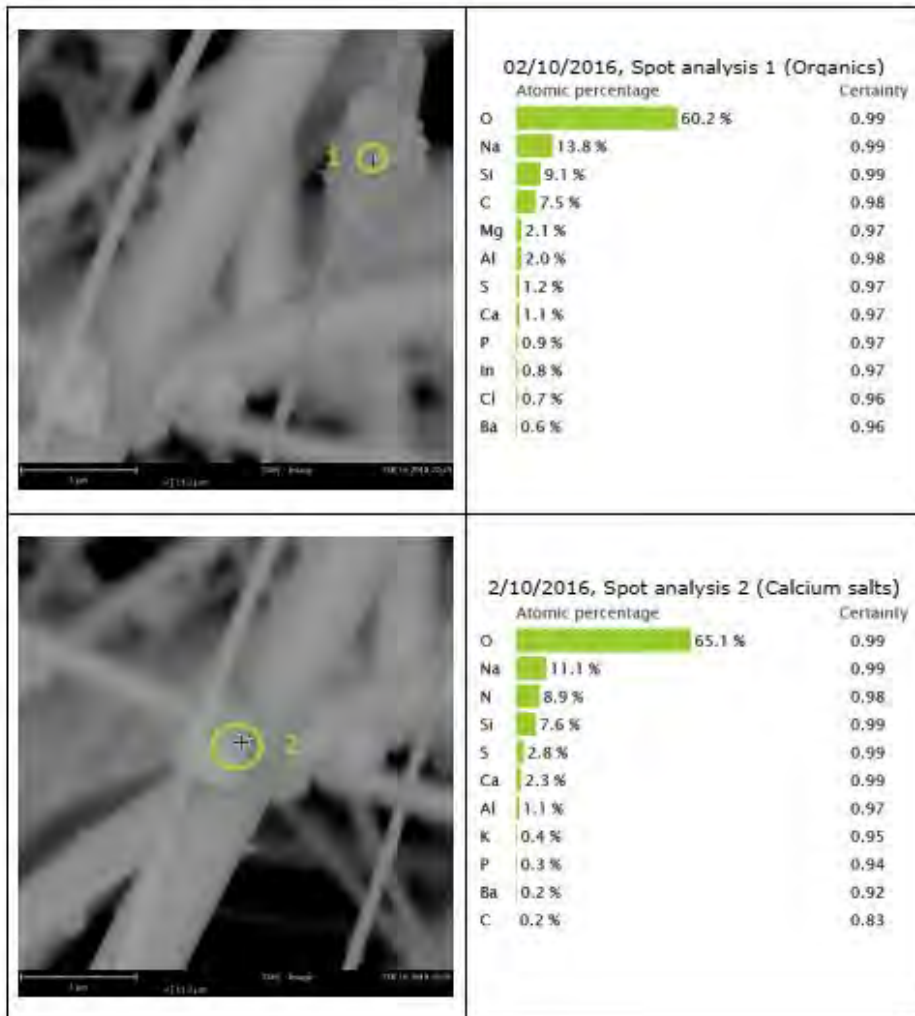
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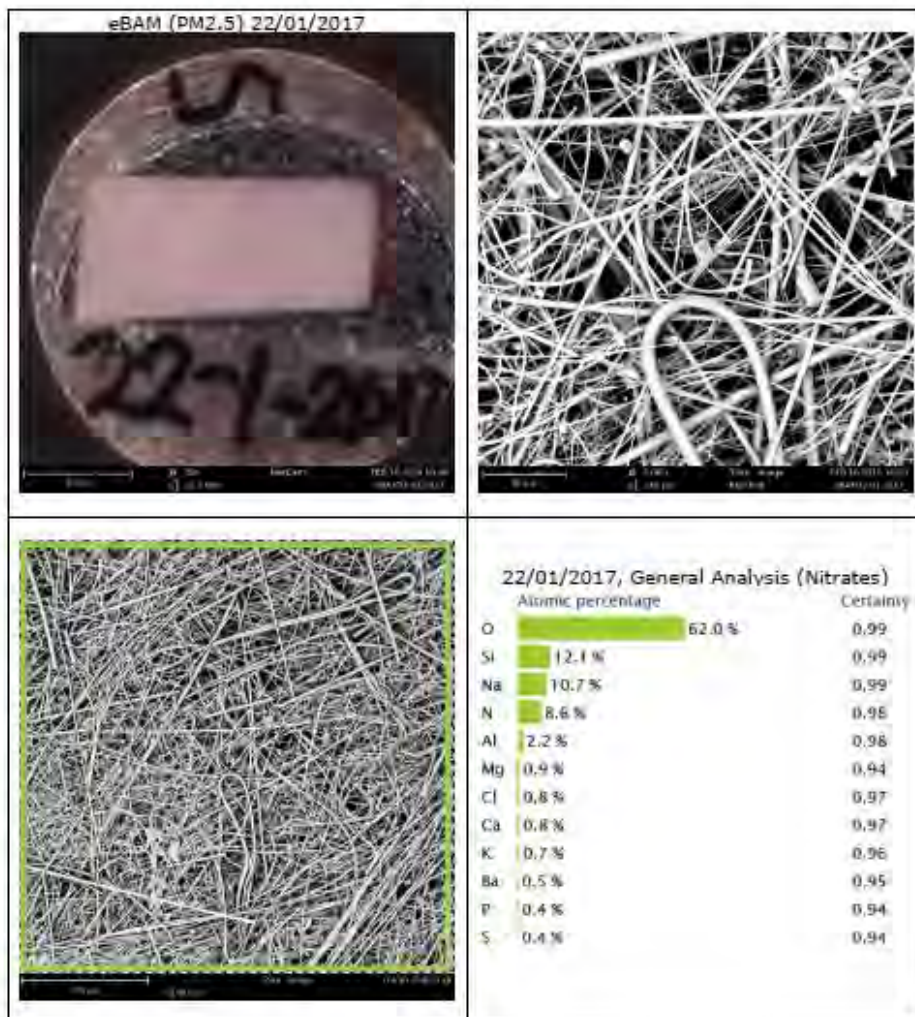
eBAM (PM2.5) 02/10/2016



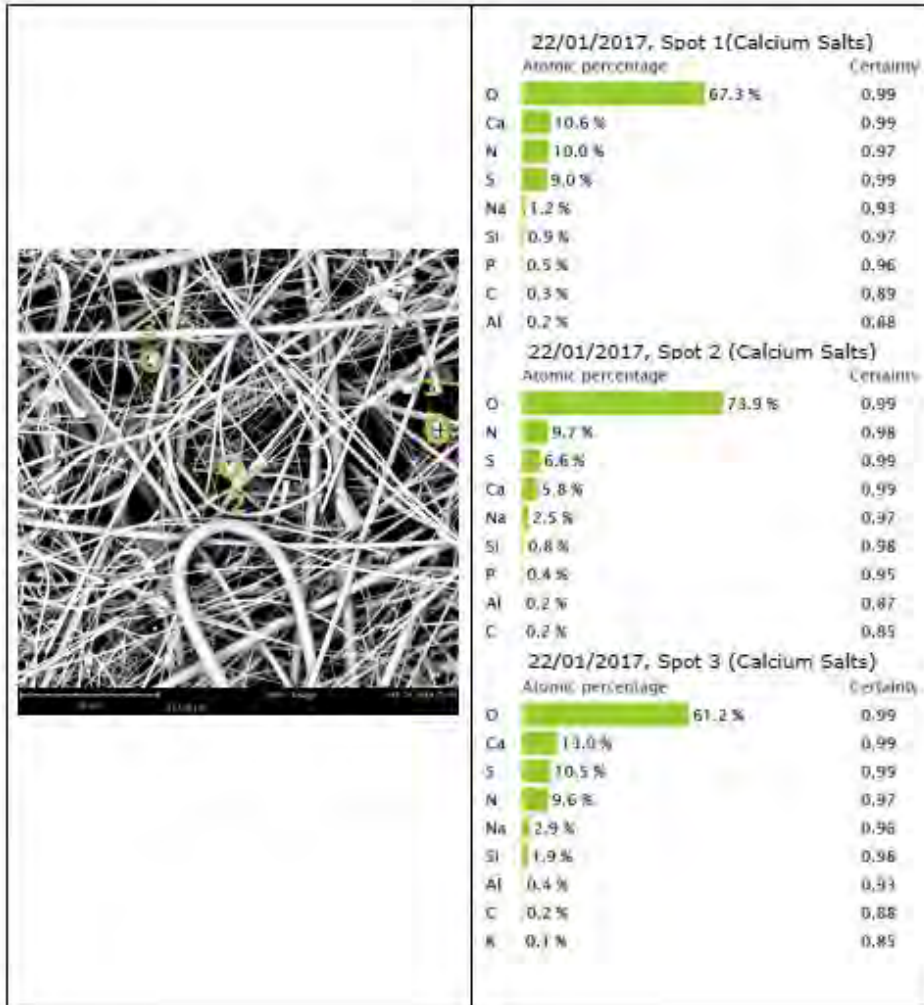
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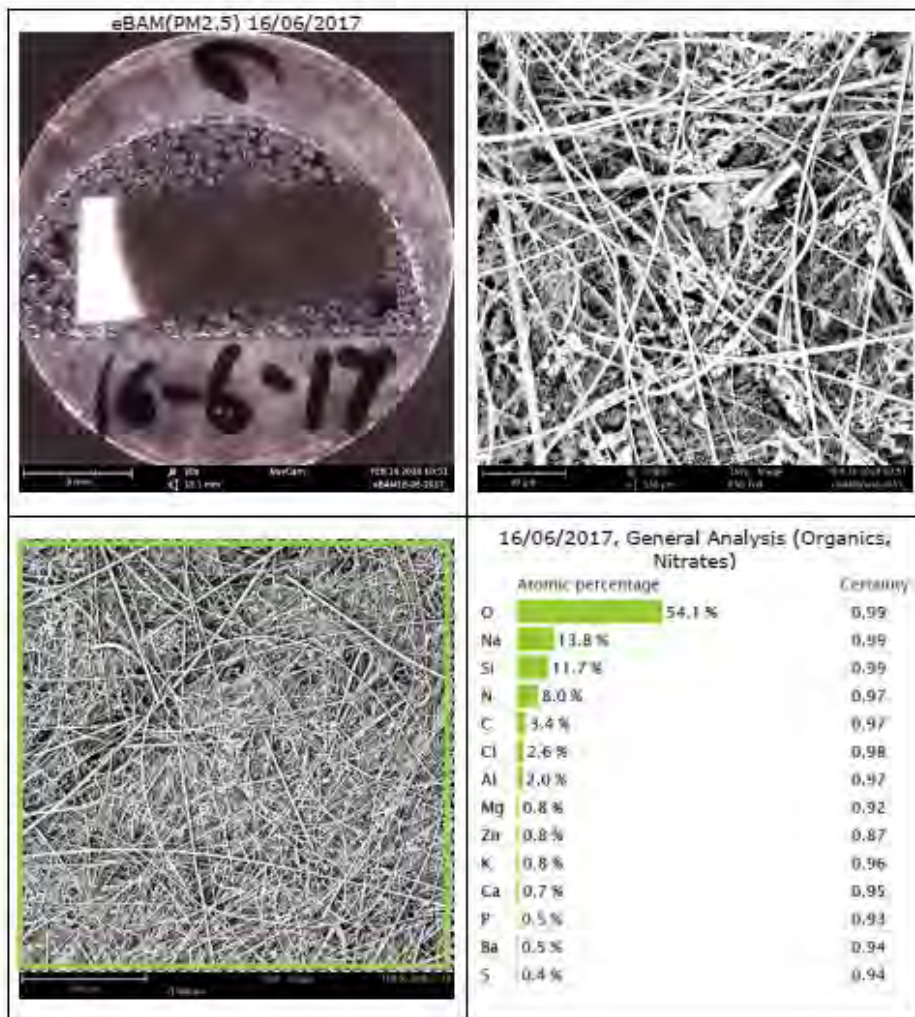
eBAM (PM2.5) 22/01/2017



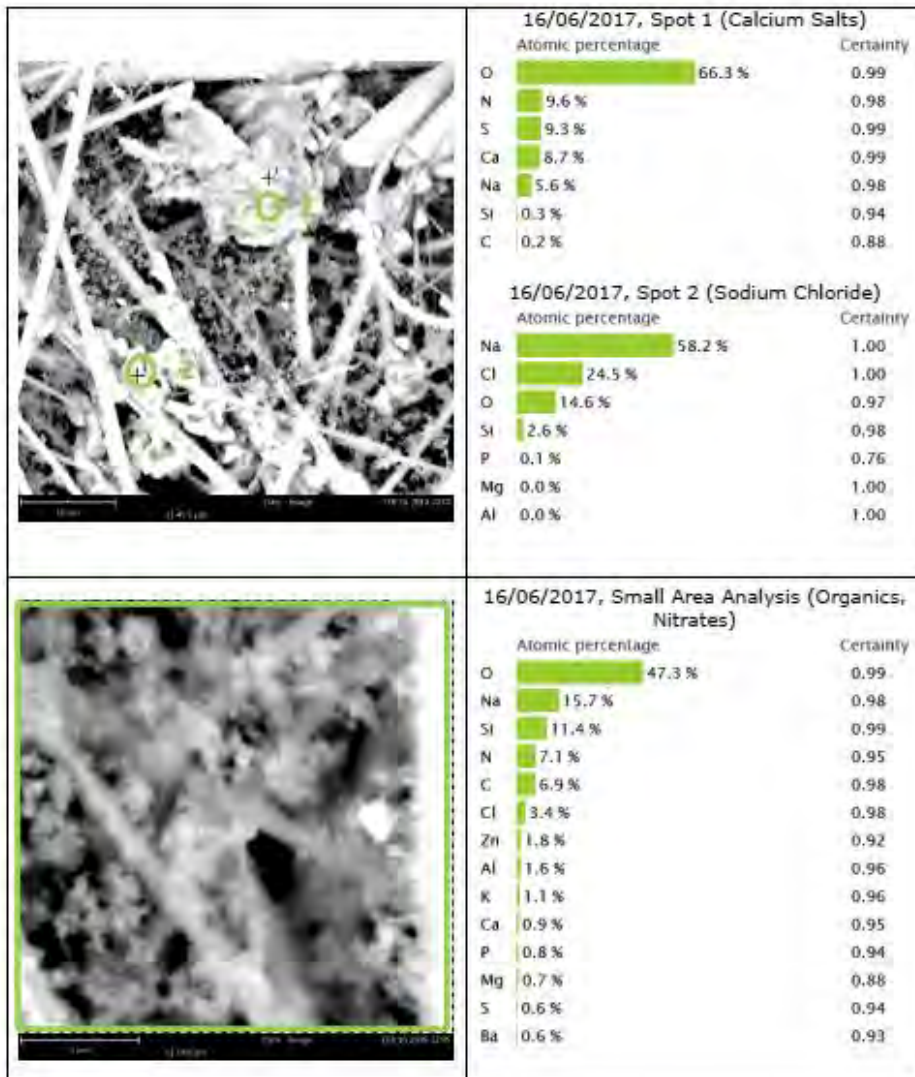
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eBAM (PM2.5) 16/06/2017



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Appendix III

Air Discharge Consent Holders



Figure 22 Location of commercial and industrial air emission consents, for the 2016-2019 period, with respect to the PM_{2.5} monitoring site (blue diamond). Consents holders are described in Table 5.

Table 5 Significant Air Discharge consents within 5km of the Central School PM_{2.5} monitoring site

Map Icon	Consent Holder/Location	Air Discharge Consent	Distance from PM _{2.5} monitoring site	Direction from PM _{2.5} monitoring site
	Dow Agrosiences (NZ) Ltd	Agrichemical formulation and packaging plant	4.9	W
	Port Taranaki	Port operations including blowing operations and abrasive blasting	4.1	W
	Dialog Fitzroy Ltd	Abrasive blasting operations	3.5	NE
	Downer NZ Ltd	Asphalt paving mix manufacturing	3.8	NE
	Ravensdown Fertilizer Coop Ltd	Fertilizer production. (Surrendered, no longer current)	3.0	NE
	Katere Surface Coatings	Abrasive blasting and surface coating activities	4.6	NE
	New Plymouth District Council	Composting, abrasive blasting and other activities at Colson Rd landfill	3.7	E

Appendix IV

Additional Figures

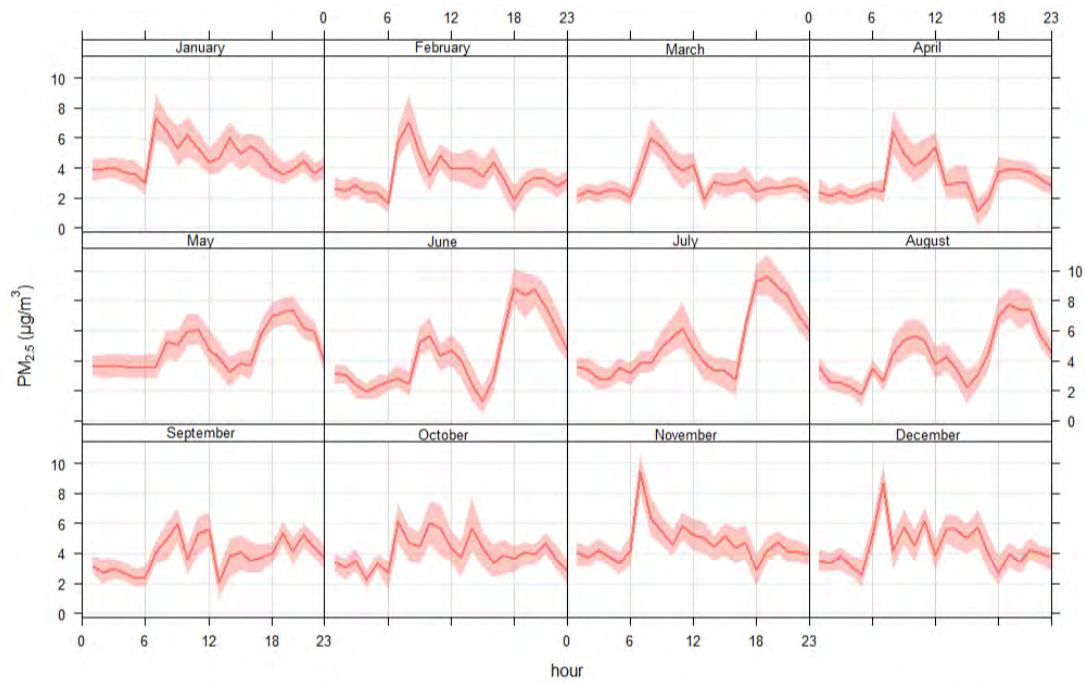


Figure 23 Diurnal variation in $PM_{2.5}$ concentration by month of the year

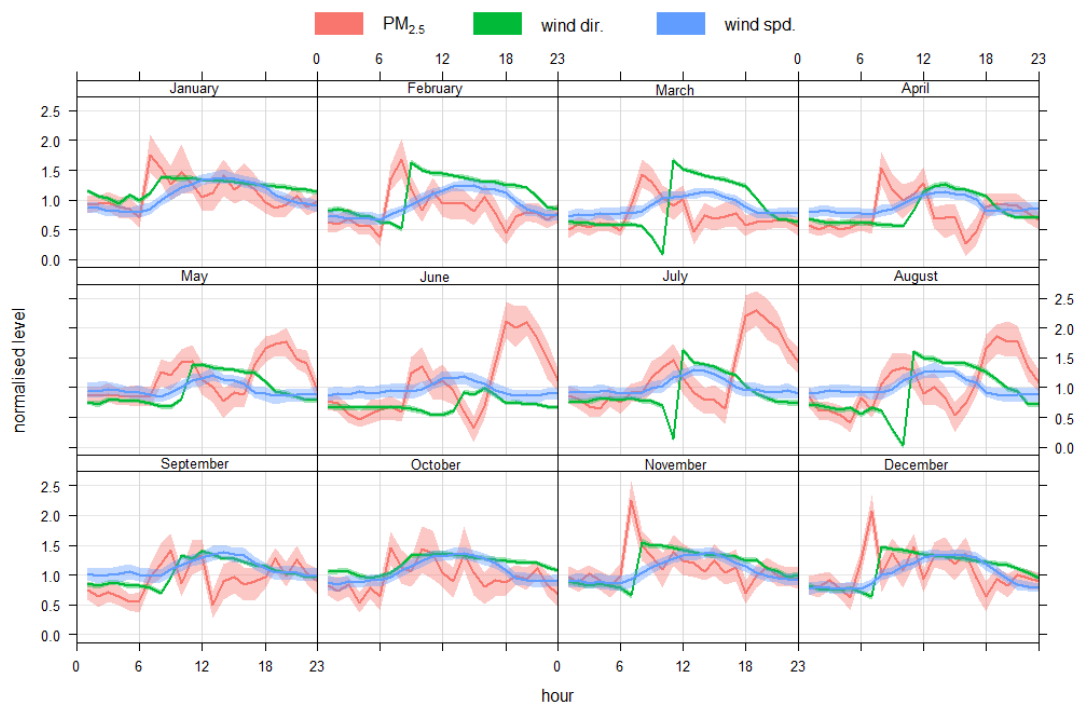


Figure 24 Comparison of normalized diurnal $PM_{2.5}$, wind direction and wind speed variations.



Figure 25 Calendar plot showing the air quality rating of each day in the monitoring period, with the mean wind direction for that day overlaid. Days with an arrow but a white background have no daily PM_{2.5} mean calculated for them as data did not meet the 75% threshold

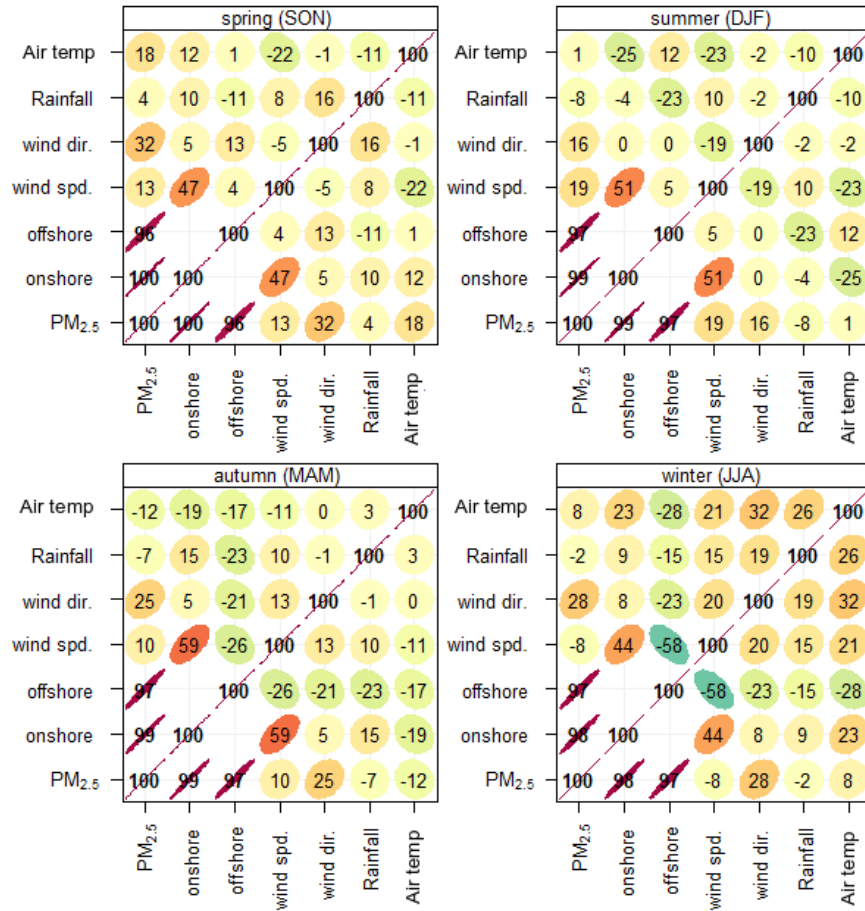


Figure 26 Pearson's correlation matrices for PM_{2.5} and meteorological variables, split by season

Appendix V

Phenom ScEM analysis and PM_{2.5} level comparisons

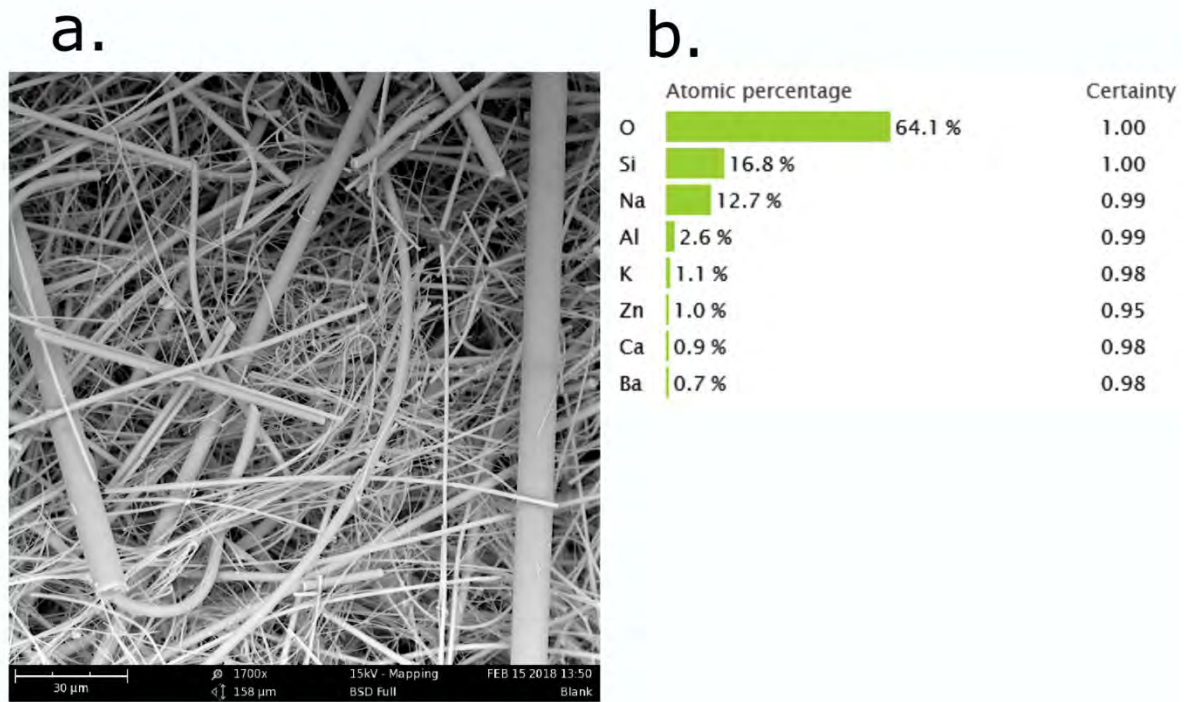


Figure 27 ScEM analysis of a blank filter. (a) Photo of the filter. (b) Percentage elemental composition of the blank filter.

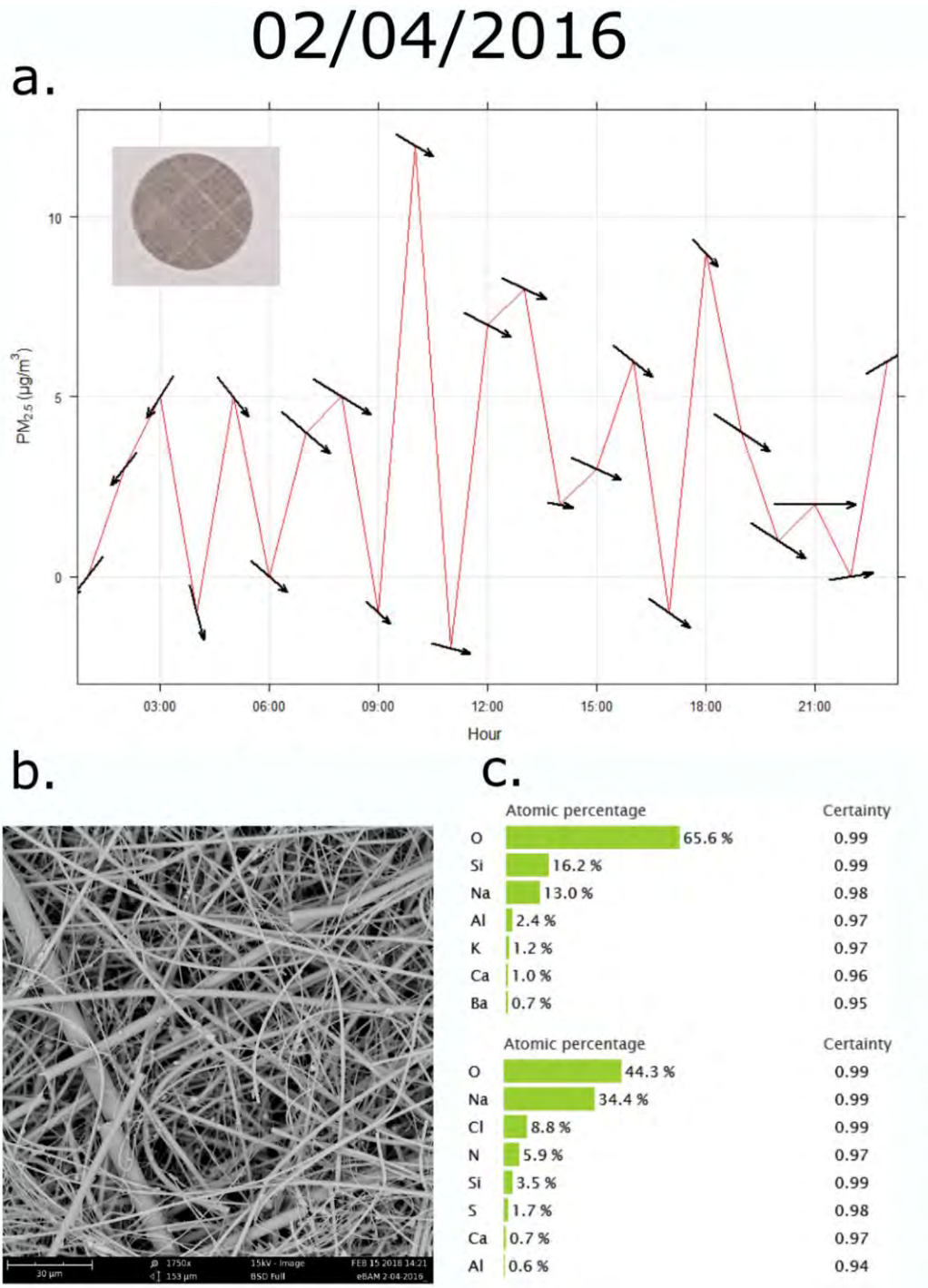


Figure 28 ScEM analysis of the EBAM filter from 2nd April 2016, when a daily mean of $3\mu\text{g}/\text{m}^3$ was recorded. (a) Variation of $\text{PM}_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo. (c) Percentage elemental composition of a region (above), and point (below) of the sample.

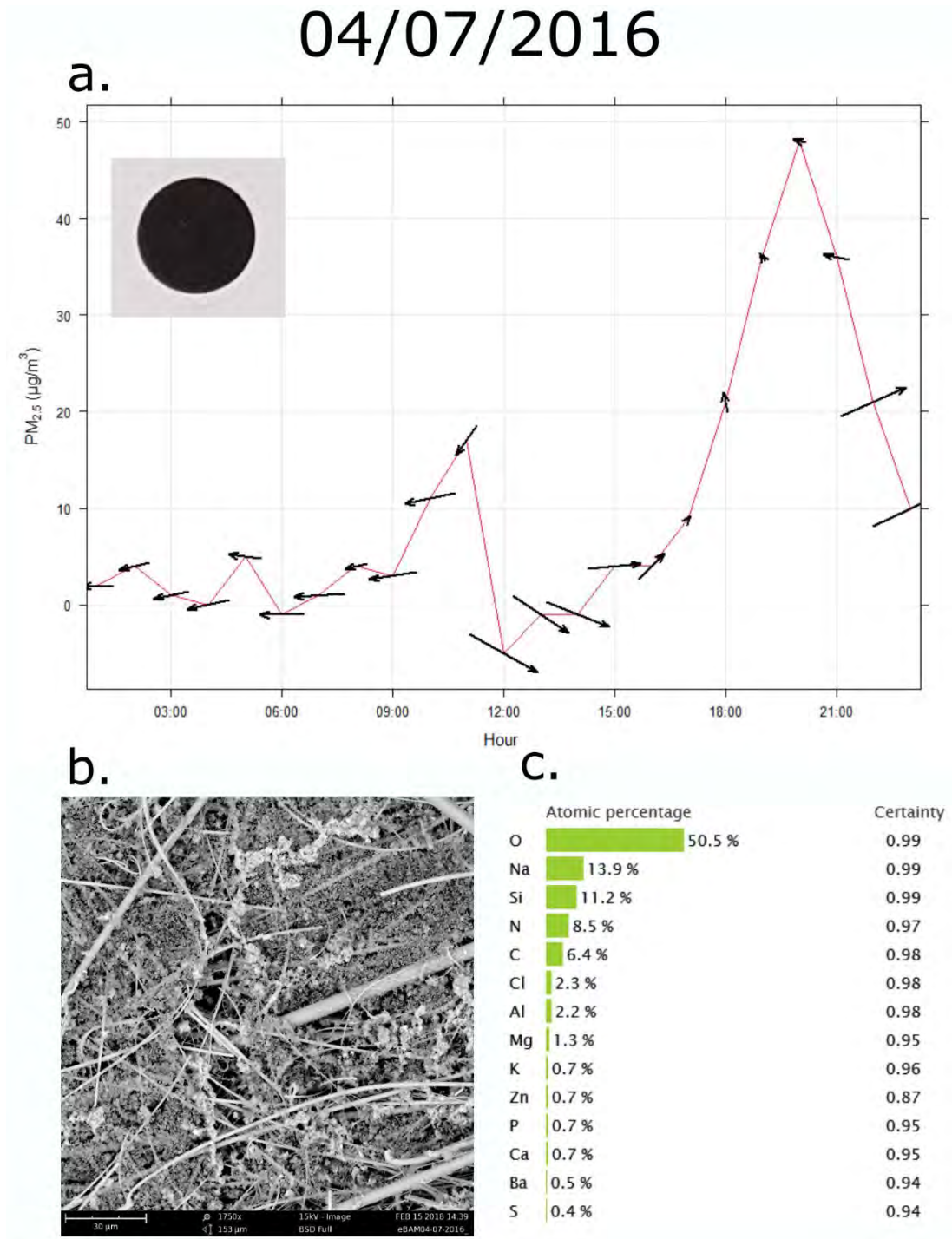


Figure 29 ScEM analysis of the EBAM filter from 4th July 2016, when a daily mean of $10\mu\text{g}/\text{m}^3$ was recorded.. (a) Variation of $\text{PM}_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo. (c) Percentage elemental composition of a region of the sample, which shows elevated content of sodium chloride and organic particulates.

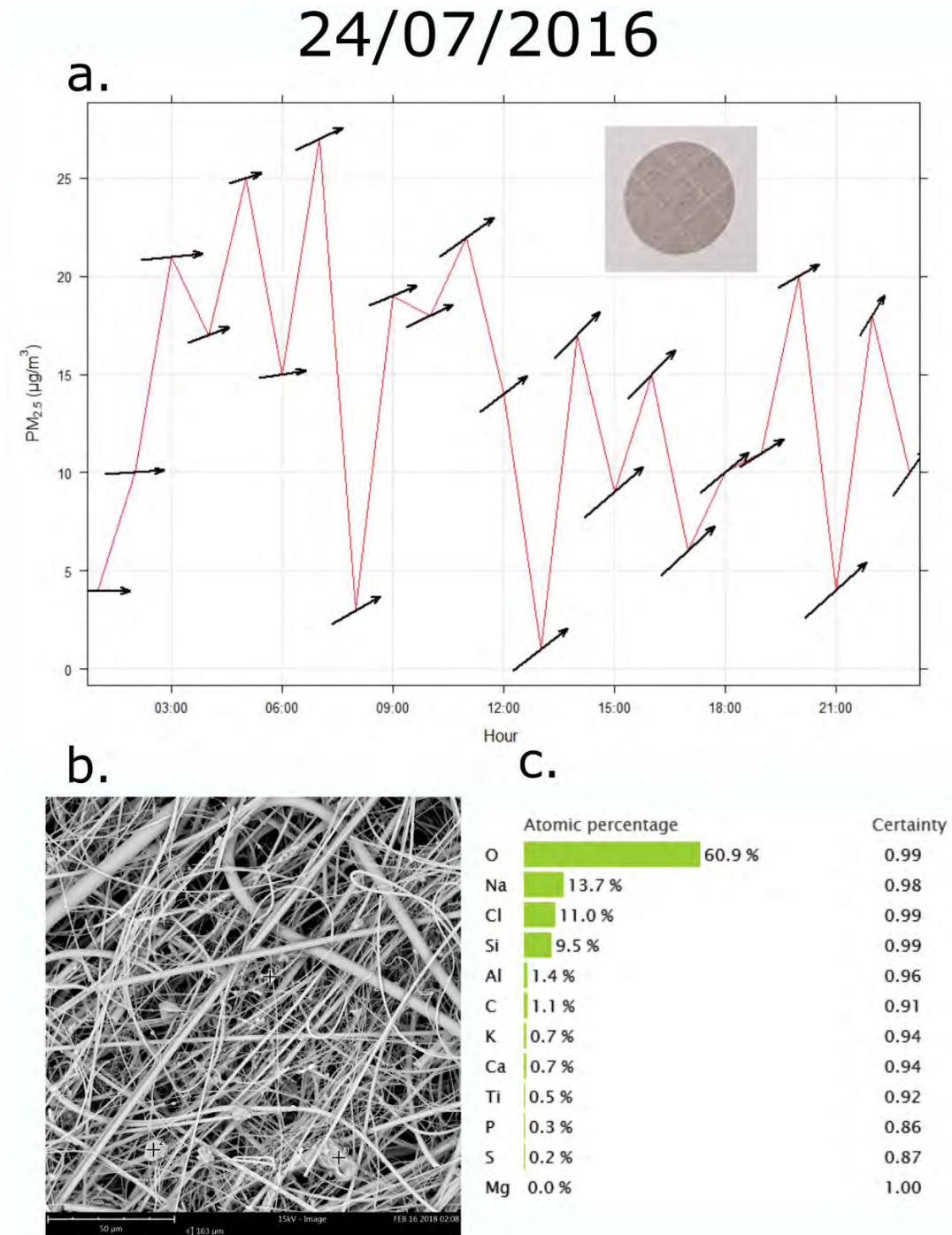


Figure 30 ScEM analysis of the EBAM filter from 24thth July 2016, , when a daily mean of $14\mu\text{g}/\text{m}^3$ was recorded.. (a) Variation of $\text{PM}_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo. (c) Percentage elemental composition of one spot of the sample, Spots analyses showed the presence of chlorides, calcium sulphate, nitrate salts and calcium salts.

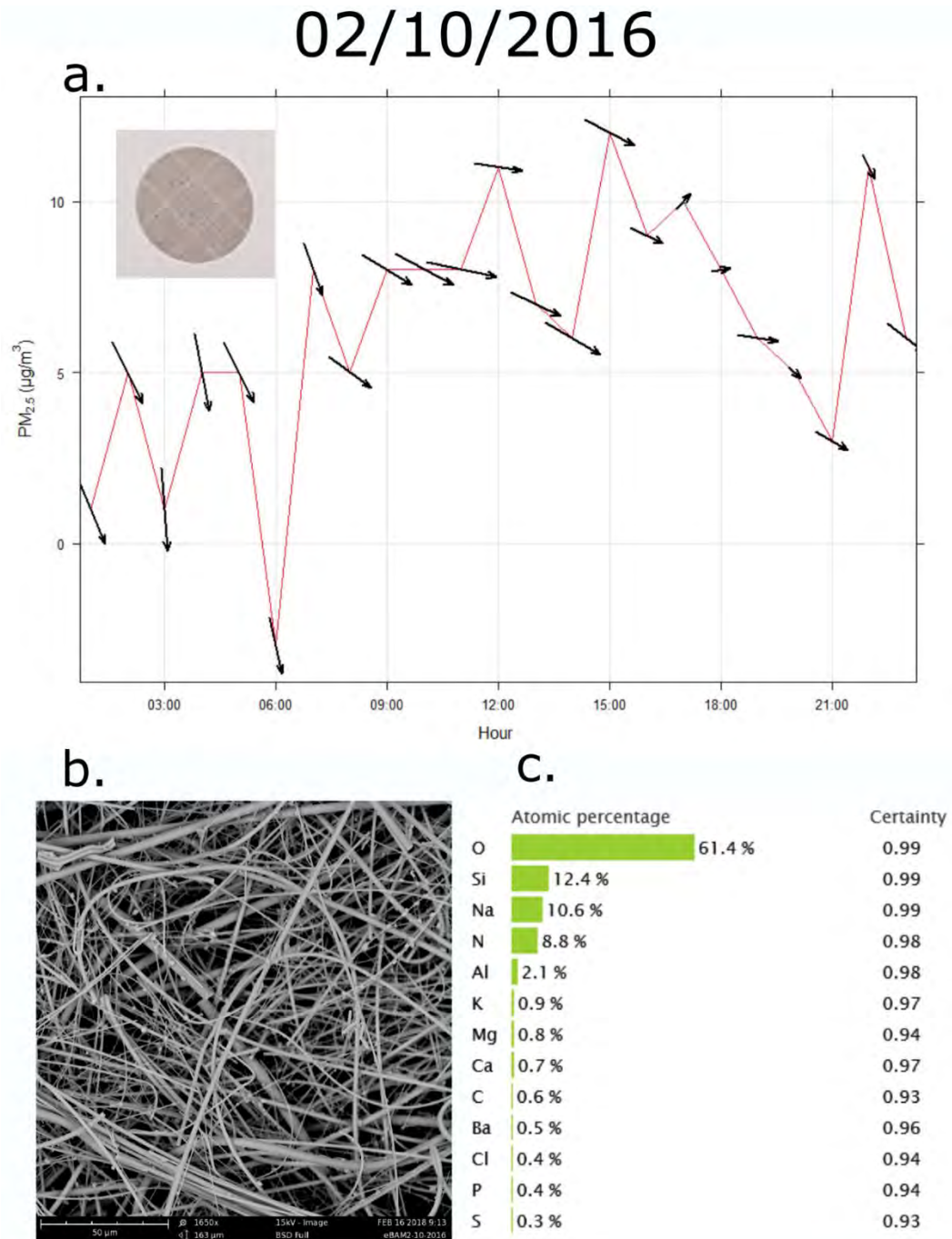


Figure 31 ScEM analysis of the EBAM filter from 2nd October 2016, when a daily mean of $6\mu\text{g}/\text{m}^3$ was recorded.. (a) Variation of $\text{PM}_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo showing calcium salts. (c) Percentage elemental composition of a region of the sample, which shows elevated content of organics and calcium salts.

22/01/2017

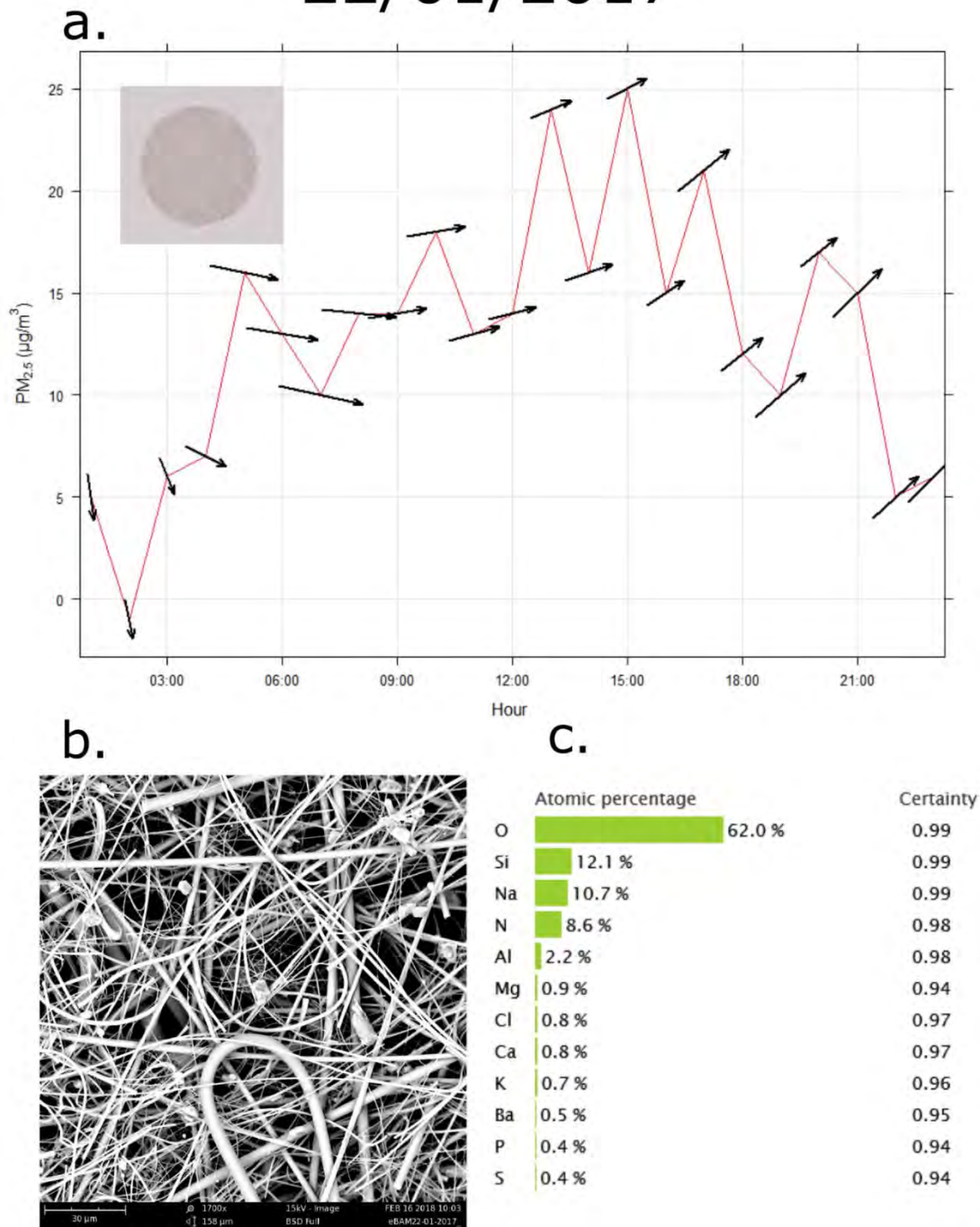


Figure 32 ScEM analysis of the EBAM filter from 22nd January 2017, when a daily mean of $13\mu\text{g}/\text{m}^3$ was recorded. (a) Variation of $\text{PM}_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo showing calcium salt particulates. (c) Percentage elemental composition of a region of the sample.

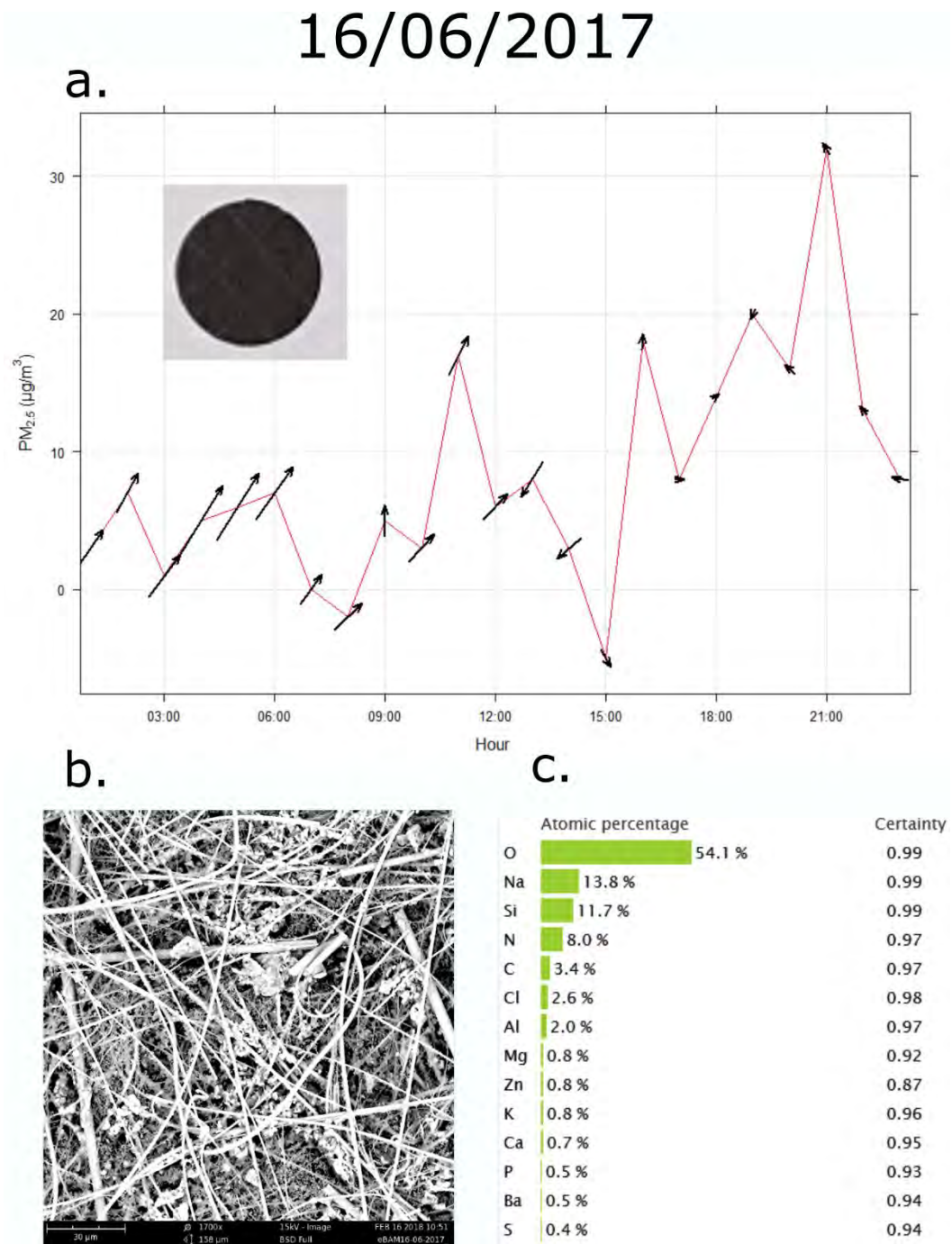


Figure 33 ScEM analysis of the EBAM filter from 16th June 2017, when a daily mean of $14\mu\text{g}/\text{m}^3$ was recorded. (a) Variation of $\text{PM}_{2.5}$ through the day, with wind direction and relative speed overlaid. (Inset: Photo of the EBAM filter). (b) ScEM sample photo, showing carbon content. (c) Percentage elemental composition of the sample from ScEM analysis, showing elevated N, C, Cl and Na content.



Date: 9 June 2020

Subject: **Update on Old Man's Beard Control Programme - Waingongoro River**

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

Document: 2479649

Purpose

1. The purpose of this memorandum is to update Members on progress with implementation of the Old man's beard control programme along the Waingongoro River.

Executive summary

2. Old man's beard is currently listed as a sustained controlled pest in the *Regional Pest Management Plan for Taranaki* with rules requiring its control in all areas except within 50 metres for two of the region's rivers, namely the Patea River and the Waingongoro River downstream of Ōpunake Road and State Highway 3.
3. Following the successful 'roll back' of infestations of Old man's beard along the Kaūpokonui Stream by the application of a 'self-help' programme, the Waingongoro River is now being targeted for initial control. This 'self-help' concept involves the Taranaki Regional Council (the Council) undertaking initial control of Old man's beard infestations to very low levels, with the land occupiers then assuming responsibility for on-going control of their properties.
4. Since 2017 contractors have successfully undertaken control operations to clear Old man's beard along 26 kilometres of the Waingongoro River in four of a planned 10 stages along the length of the catchment. Control involves multiple treatments, it is estimated that initial control will be completed by 2026.
5. During spring / summer 2019-2020, the programme's focus was on 700m of near vertical and inaccessible riverbanks that required the assistance of specialist abseil contractors.
6. Following initial control, monitoring was undertaken to identify any areas requiring re-treatment. For some 'hotspots' additional treatment was required.
7. Hotspot (retreatment) control continued over the other 25 kilometres where required.

8. In accordance with the *Regional Pest Management Plan for Taranaki* (the Pest Plan), once the initial control has been successful, landowners assume responsibility to manage any new infestations in the controlled areas.
9. Acceleration of this programme is one of the opportunities the Council is investigating with central government for COVID-19 recovery funding.

Recommendation

That the Taranaki Regional Council:

- a) receives the memorandum *Update on Old Man's Beard control programme - Waingongoro River*.

Background

10. Old man's beard is one of the most damaging and invasive climbing plants in New Zealand and is a significant threat to indigenous biodiversity values in the Taranaki region. It is particularly troublesome in riparian margins and in second growth or damaged indigenous forests, of which there are some remnant areas on the ring plain. The plant is widely distributed in the Taranaki region. The most significant infestations are around New Plymouth and Stratford, and riparian margins and hedges along the Waingongoro and Pātea rivers.
11. Across Taranaki, the Council has been relatively successful in preventing Old man's beard becoming an intractable environmental weed, as is the case in many other regions across New Zealand.
12. Pursuant to the Pest Plan, land occupiers in Taranaki are required to control infestations of Old man's beard with the exception of any infestations within 50 metres of the Pātea River and the Waingongoro River downstream of Ōpunake Road and State Highway 3. The rationale for excluding those waterways from land occupier obligations at that time was that the imposition of land occupier obligations was considered overly onerous and unreasonable given the high levels of infestation in those areas.
13. In accordance with its Pest Plan, the Council is seeking to incrementally reduce infestations (and apply land occupier rules) of Old man's beard along the Pātea and Waingongoro rivers over the life of the Plan. The Council's approach is to assume responsibility for initially knocking down infestations to very low levels, with the land occupiers then assuming responsibility (through land occupier rules) for the on-going control of infestations on their properties.
14. As part of the programme, all landowners are contacted before the commencement of the operation to discuss access to the land and control methods. The Council has an ongoing role providing advice and information, undertaking inspections, and monitoring to identify any remedial action that needs to be undertaken. Quality control auditing of the success of the initial control has been undertaken through on-site inspections and the receipt of GPS data confirming the areas that have been treated.
15. Following the successful 'roll back' of infestations of Old man's beard along the Kaupokonui Stream by the application of a 'self-help' programme, the Waingongoro River is now being targeted for initial control.

Control programme for the Waingongoro River

16. Set out below is an update on the Old man's beard control programme for the Waingongoro River. Members will note that the programme commenced in Spring 2017. It is a rolling programme involving approximately 100 properties, over a 70-kilometre stretch, over an 8 to 10 year period, multiple planned retreatments will be required.
17. Following discussions and consultation with affected landowners, including their signing up to undertaking ongoing control, the Council commissioned contractors to commence Stage One of the Waingongoro River Old man's beard programme. Stage One control involved initial control measures of 10 properties along a 7-kilometre stretch of the Waingongoro River between Ōpunake Road and Finnerty Road for a minimum of two seasons. The aim is to reduce Old man's beard infestation by at least 95%.
18. Following control, the Council officers surveyed the outcome of the Stage One control to assess the effectiveness of the control. The survey identified live Old man's beard within the treatment area where retreatment was required. Re-growth was not unexpected as the process to reduce infestation levels of the pest would require multiple treatments. Contractors later re-worked the area to address any 'hotspots'.
19. In late 2017, again following discussions with and agreement from affected landowners, the Council commenced Stage Two of the programme targeting the next section of river from Finnerty Road to Eltham Road.
20. The Stage Two control area runs for a distance of approximately 11 kilometres through 30 properties. Land occupiers on that stretch of the river also signed-up to the two-part agreement to allow the Council contractors to perform the work and, following the initial control, to undertake on-going maintenance.
21. Over the past two years, an additional 8 kilometres over two sections has been targeted from Eltham Road to Stuart Road.
22. Re-treatment of 'hot spots' across all sections are inevitably required but overall the programme has been a success. Factors requiring areas to be re-treated are due to a number of reasons including problems of access due to near-vertical river banks, blackberry, barberry, boxthorn, barbed wire, and the density of Old man's beard infestation.
23. During spring/summer of 2019-2020, work slowed significantly due to particularly heavy infestation in largely inaccessible areas that required the assistance of specialist abseil contractors - just under 700 metres of new ground was covered. This area is likely to require additional ongoing control and support to the landowners.
24. Contractors have now undertaken control mainly on foot, along approximately 26 kilometres of the Waingongoro River with a further 44 km yet to be controlled.

Stage	One	Two	Three	Four	Remaining
Distance Controlled	7.5km	11km	7km	0.7km	44km
Landowners	10	30	7	2	

Table: Riverbank controlled by stages

25. Through the programme the Council anticipates it will successfully reduce Old man's beard to very low levels along the Waingongoro River, from Ōpunake Road to the coast. After the initial control operation is completed, the current exemption for land occupiers to control old man's beard along the Waingongoro River will no longer apply. The Council will work with land occupiers to ensure that Old man's beard is maintained at low levels.
26. Acceleration of this programme is one of the opportunities the Council is investigating with central government for COVID-19 recovery funding.

Decision-making considerations

27. 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

28. 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

29. 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

30. 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 have been recognised in the preparation of this memorandum.

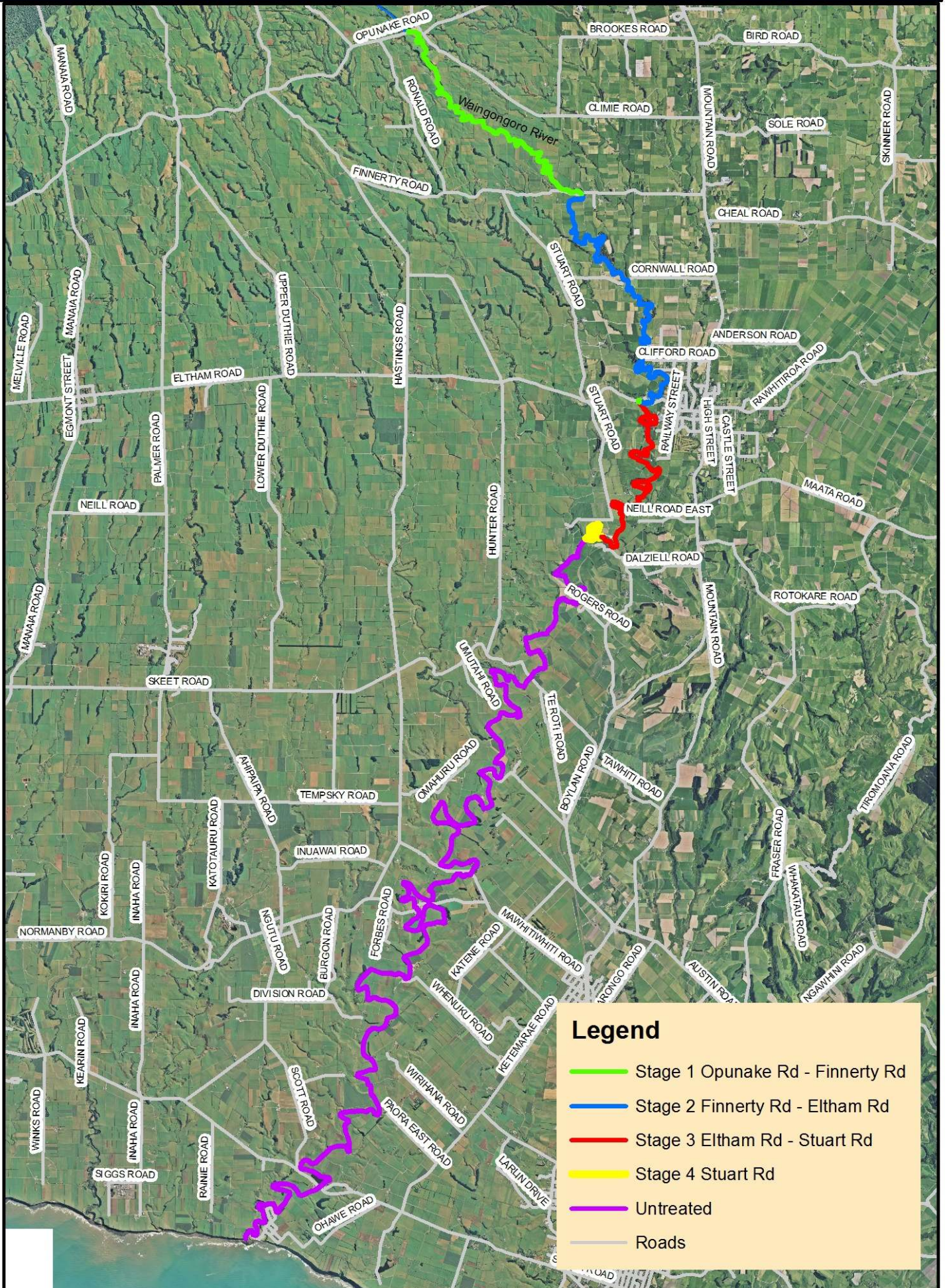
Legal considerations

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

Attachments/Appendices

Document 2510547: OMB control

OMB Control Waingongoro River





Date 9 June 2020

Subject: **Principles of Treaty of Waitangi**

Approved by: A D McLay, Director Environment Quality
B G Chamberlain, Chief Executive

Document: 2510705

Purpose

1. The purpose of this memorandum is to:
 - provide background information to the Committee on the principles of the Treaty of Waitangi;
 - outline what reference to the principles is made in the Local Government Act 2002 (LGA) and in the Resource Management Act 1991 (RMA); and
 - advise whether as a result, the Council must provide iwi representatives on Council committees with iPads or equivalent devices.

Executive summary

2. On 3 March 2020 following the powhiri welcoming iwi representatives to the Council, Mr Peter Moeahu (one of the iwi representatives) subsequently raised concerns that iwi representatives were not provided with Council iPads to conduct Council business. Mr Moeahu asked that the Council supply iPads to iwi representatives in line with the principle of partnership. Section 8 of the RMA requires the Council to take into account the principles of the Treaty of Waitangi in exercising the Council's functions under the RMA.
3. Cr Littlewood requested that a paper be prepared for the next Policy and Planning meeting that discussed the principles of the Treaty of Waitangi to ensure all committee members had a shared understanding to inform any future debate at the Committee.
4. The Council's initial response was that twenty five people sit on TRC's committees as representatives/alternates from other organisations attending from four to eight meetings a year. All information relevant to the business of the Committees, including all Agenda papers, are available to all members in hard copy on request. If hard copy papers are deemed not sufficient, this is a matter for representatives to discuss with the organisations that appointed them.
5. The principles of the Treaty of Waitangi were first mentioned in New Zealand law in the Treaty of Waitangi Act 1975. Since that Act was passed, over 30 pieces of legislation refer to Treaty principles and other documents such as Court decisions and Waitangi Tribunal findings have discussed their meaning.

6. The ways in which the principles are applied in practice will vary according to the purpose of the legislation, the wording of the Treaty reference and the powers and functions of agencies under those Acts.
7. The main principles developed by the Courts and the Waitangi Tribunal are those of partnership, good faith, active protection, the need for compromise and the duty to consult.
8. An analysis of the LGA and the RMA has concluded that the Council continues to meet its statutory obligations. The Council has carefully considered how to promote the participation of iwi in the Council's decision-making processes and has acted accordingly.
9. The analysis also concludes that the Council is not obliged nor is it legally required to supply iPads to iwi representatives under the principles of the Treaty of Waitangi.

Recommendations

That the Taranaki Regional Council:

- a) receives the memorandum *Principles of the Treaty of Waitangi*;
- b) notes that the Council continues to meet its statutory obligations regarding the principles of the Treaty of Waitangi; and
- c) notes that the Council is not obligated nor is it required to supply iPads to iwi representatives under the principles of the Treaty of Waitangi.

Background

10. On 3 March 2020 following the powhiri welcoming iwi representatives to the Council, Mr Peter Moeahu (one of the iwi representatives) raised concerns that iwi representatives were not provided with Council iPads to conduct Council business. Mr Moeahu asked that the Council supply iPads to iwi representatives consistent with section 8 of the RMA.

Mr Moeahu noted further, that the primary reason for iwi representation at the Taranaki Regional Council is to contribute to Council decision-making and to deny iPads to iwi representatives was disrespectful and not in the spirit of the principles of the Treaty of Waitangi. He asked that the policy be reconsidered.

11. In response, Cr David MacLeod, Chairman of the Council and Cr Charlotte Littlewood, Chairperson of the Policy and Planning Committee, maintained that the Council's position of not providing an iPad as requested does not limit iwi participation in Council decision-making and is not contrary to the principles of the Treaty of Waitangi. They noted that Agenda and related information could be provided in both electronic form and hard copy that provides for such participation.
12. Cr Littlewood requested that a paper be prepared for the next Policy and Planning meeting that discussed the principles of the Treaty of Waitangi further.

The Principles of the Treaty of Waitangi

13. The general law is very clear that the Crown is the Treaty partner, and that local authorities are not.¹ However, the Crown has, by enacting legislation, manifested its responsibilities as Treaty partner by conferring specific obligations on local authorities.
14. The Treaty of Waitangi Act 1975 was the first piece of legislation to refer to the principles of the Treaty of Waitangi. That Act also established the Waitangi Tribunal.
15. Since the Treaty of Waitangi Act was passed there have been many references to the principles of the Treaty in legislation (over 30 pieces of legislation now refer to the Treaty principles). Court decisions and Waitangi Tribunal reports have deliberated on the meaning of the principles.
16. It is not possible to compile a complete set of Treaty principles as the Treaty is a living and continuing document which calls to be interpreted and applied in a contemporary setting.²
17. The Courts and the Waitangi Tribunal have articulated only those principles relevant to each case before them, adopting a case-by-case approach. Care must be taken not to extract principles of general application from decisions given in respect of individual fact situations.
18. The way in which the principles are applied will vary, according to the purpose of the legislation, the wording of the Treaty reference in the particular Act and the powers and functions given to agencies under those Acts. It is also likely that in any given context some principles will be more relevant than others.
19. While there is no comprehensive or authoritative list of the principles of the Treaty of Waitangi available for decision-makers to consider, the High Court has adopted a list of “central principles” as expressed by the Waitangi Tribunal. Those principles include the following:³
 - The Crown has an obligation to actively protect Māori interests. Kawanatanga is less than absolute sovereignty and carries with it protective obligations.
 - The Crown and Māori have mutual obligations to act reasonably and in good faith. Good faith consultation between parties is necessary to sustain the Treaty relationship.
 - The Treaty provides a basis for a changing relationship and should always be progressively adapted. The Treaty has to be adapted to modern, rapidly changing circumstances.
 - There is a principle of mutual benefit that should be applied. It is the Tribunal’s view that neither partner can demand its own benefits if there is not also an adherence to reasonable state objectives of common benefit.
 - The Treaty has the basic object of two peoples living together in one country, and this concept lays the foundation for the principle of partnership.
 - The Crown has guaranteed rangātiratanga to all iwi, which includes an implicit guarantee that the Crown would not allow one iwi an unfair advantage over another. There can be seen a principle of fair process incorporating the concept that the government should be accountable for its actions in relation to Māori.

1 See for example *Hanton v Auckland City Council* [1994] NZRMA 289.

2 *Mason-Riseborough v Matamata-Piako DC* (1997) 4 ELRNZ 31 (EnvC). See also *Tangiara v Wairoa DC* A006/98 at 9–13.

3 See [27], *Carter Holt Harvey Ltd v Te Runanga o Tuwharetoa ki Kawerau* [2003] 2 NZLR 349, (2003) 9 ELRNZ 182.

- The Crown has an obligation to recognise rangātiratanga. This may include a tribal right to manage resources in a manner compatible with Māori custom. The Tribunal has suggested that it was an intrinsic principle of the Treaty that Māori would recognise and respect the Governor and the Governor's right to national governance, while the Governor would recognise and respect Māori and their rangātiratanga.

Local Government Act and Resource Management Act

Local Government Act 2002

20. As stated above, the Crown is the Treaty partner, and local authorities are not. However, the Crown has, by enacting legislation, manifested its responsibilities as Treaty partner by conferring specific obligations on local authorities.
21. The LGA contains reference to the Treaty of Waitangi. Section 4 states:

'4. Treaty of Waitangi

*In order to recognise and respect the Crown's responsibility to take appropriate account of the principles of the Treaty of Waitangi and to maintain and improve opportunities for Māori to contribute to local government decision-making processes, **Parts 2 and 6** provide principles and requirements for local authorities that are intended to facilitate participation by Māori in local authority decision-making processes.'*

22. Section 4 makes it clear that it is the Crown's responsibility as Treaty partner to improve opportunities for Māori to contribute to local government decision-making processes. Some of these processes are contained within Part 2 (Purpose of local government, and role and powers of local authorities) and Part 6 (Planning, decision-making and accountability) of the LGA.
23. The provisions referred to in Parts 2 and 6 (specifically sections 14(1)(d) and 81) are general and include obligations relating to the fostering of development of Māori capability to contribute to decision-making processes. There are requirements to report on intended steps and progress in relation to these obligations in the long term plan and annual report (clauses 8 and 35 of Schedule 10 respectively).

LGA, Part 2

24. One of the fundamental provisions in the LGA is contained in section 11. This section sets out the role of a local authority. It states:

'11. Role of local authority

The role of a local authority is to –

- (a) give effect, in relation to its district or region, to the purpose of local government stated in section 10; and*
- (b) perform the duties, and exercise the rights, conferred on it by or under this Act and any other enactment'.*

25. Section 11 is important in the context of this memorandum because it is specifically mentioned in section 81 (Part 6 of the LGA) which deals with contributions to decision-making processes by Māori.
26. Section 10 in turn, deals with the purpose of local government. It states:

'10. Purpose of local government

- (1) *The purpose of local government is –*
- (a) *to enable democratic local decision-making and action by, and on behalf of, communities; and*
 - (b) *to promote the social, economic, environmental and cultural well-being of communities in the present and for the future.*

27. Section 14 of the LGA sets out the principles relating to local authorities. This includes section 14(1)(d), that:

'(d) a local authority should provide opportunities for Māori to contribute to its decision-making processes;'

28. A further principle in section 14 is that:

'(g) a local authority should ensure prudent stewardship and the efficient and effective use of its resources in the interests of its district or region...'

LGA, Part 6

29. Part 6 of the LGA contains specific principles and requirements with respect to planning, decision-making and accountability.
30. Section 77 sets out requirements in relation to decisions. It requires that, if a decision-making process involves a significant decision in relation to land or water, the local authority must take into account the relationship of Māori and their culture and traditions with their ancestral land, water, sites wāhi tapu, valued flora and fauna and other taonga.
31. Section 78 requires local authorities, in the course of decision-making processes, to consider the views and preferences of the community likely to be affected by or have an interest in the matter.
32. Section 79 refers to sections 77 and 78. Section 79 states:

'79 Compliance with procedures in relation to decisions

- (1) *It is the responsibility of a local authority to make, in its discretion, judgements –*
- (a) *about how to achieve compliance with sections 77 and 78 that is largely in proportion to the significance of the matters affected by the decision...; and*
 - (b) *about in particular –*
 - (i) *the extent to which different options are to be identified and assessed; and*
 - (ii) *the degree to which benefits and costs are to be quantified; and*
 - (iii) *the extent and detail of the information to be considered; and*
 - (iv) *the extent and nature of any written record to be kept of the manner in which it has complied with those sections.*
- (2) *In making judgements under subsection (1), a local authority must have regard to the significance of all relevant matters and, in addition, to –*
- (a) *the principles set out in section 14; and*
 - (b) *the extent of the local authority's resources; and*
 - (c) *the extent to which the nature of a decision, or the circumstances in which a decision is taken, allow the local authority scope and opportunity to consider a range of options or the views and preferences of other persons.'*

33. Section 81 sets out requirements relating to the contributions to decision-making processes by Māori. Section 81 states:

'81 Contributions to decision-making processes by Māori

- (1) *a Local authority must –*
- (a) *establish and maintain processes to provide opportunities for Māori to contribute to the decision-making processes of the local authority; and*
 - (b) *consider ways in which it may foster the development of Māori capacity to contribute to the decision-making processes of the local authority; and*
 - (c) *provide relevant information to Māori for the purposes of paragraphs (a) and (b).*
- (2) *A local authority, in exercising its responsibility to make judgements about the manner in which subsection (1) is to be complied with, must have regard to –*
- (a) *the role of the local authority, as set out in section 11; and*
 - (b) *such other matters as the local authority considers on reasonable grounds to be relevant to those judgements.*

34. The Council has provided significant opportunities for Māori to contribute to its decision-making processes.
35. It has held extensive and detailed negotiation with iwi as part of Treaty settlement processes culminating in the appointment of three iwi representatives to each of the Council's Standing Committees to represent all iwi in Taranaki. This arrangement, agreed between iwi and the Council, provides an effective and efficient mechanism for iwi involvement in Council decision-making processes and one that was welcomed by all iwi in Taranaki.
36. Iwi representatives on the Council's Standing Committees receive meeting payments or allowances and can recover their transport costs for attending meetings. Furthermore, all information relevant to the business of the Committees, including all Agenda papers, are available to all members electronically or in hard copy on request.
37. At its meeting on 19 December 2019, the Council agreed its policy on allowances and recovery of expenses for the elected members of the Council for the next three-year triennium commencing on 12 October 2019. That policy provided for a Council owned iPad or equivalent mobile device to be provided to Councillors for the purposes of accessing agendas and conducting Council business. The device remains the property of the Council (see attachment).
38. The Council has also adopted a range of other processes to facilitate participation by Māori in Council decision-making processes. These are set out in the Council's 2018-2028 Long-Term Plan as required by Schedule 10 of the LGA. These include, among other processes:
- Providing opportunities for Māori to be involved at the earliest stages, in major policy, strategy and plan making decisions under various statutes that the Council operates under.
 - Continuing and further developing Māori participation in the resource consent process.
 - Meeting with Māori to discuss any matters of mutual interest at times and venues to be agreed.
 - Establishing working parties and other informal groups with representatives of Māori and the Council to progress issues of mutual interest.

- Developing with the appropriate Māori governance entities, an effective working relationship between the Council and the governance entities, through memoranda of understanding protocols or other means.
 - Providing technical advice, information and related support in the preparation and review of Council policies, plans and strategies.
 - Providing technical assistance and advice in preparing iwi planning documents and consider financial or other support for preparing such documents.
 - Sharing information held by the Council, subject to any statutory restrictions on the release or use of that information, and protecting sensitive information provided to the Council by Māori.
39. The Council is working on other initiatives, such as the development of future relationship agreements, or Mana Whakahono a Rohe agreements, under the RMA.
40. All of these processes have been through multiple public consultation processes, which has enabled the Council to satisfy the requirements of Parts 2 and 6 of the LGA.
41. The Council considers that it has met its current statutory obligations under the LGA to facilitate participation by Māori in the decision-making processes of the Council. The arrangements that have been entered into are efficient and effective for both iwi and the Council.

Resource Management Act 1991

42. Section 8 of the RMA contains obligations on all persons exercising functions and powers under the Act, with respect to the Treaty of Waitangi. Section 8 states:

'8 Treaty of Waitangi

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).'

43. The courts have confirmed that section 8 does not impose the Crown's Treaty obligations on councils,⁴ and the words "take into account" mean that the Treaty principles must be weighed along with all other relevant matters when coming to a decision, but they are subordinate to the primary purpose of the RMA.⁵
44. In addition to the obligation in section 8, there are other duties on councils such as:
- the requirement to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga (section 6(e)), along with other matters of national importance that must also be recognised and provided for;
 - the requirement to have particular regard to kaitiakitanga (section 7(a)), along with other matters to which particular regard must be had;
 - a duty to consult with tangata whenua through iwi authorities before notifying a proposed policy statement or plan (schedule 1, clause 3); and
 - provisions for the formalisation of iwi authority participation through Mana Whakahono a Rohe (sections 58M-58U).

⁴ *Hanton v Auckland City Council* [1994] NZRMA 289.

⁵ *Freda Pens Reweti Whanau Trust v Auckland Regional Council* 9/12/05, Courtney J, HC Auckland CIV-2005-404-356.

45. The clear intention of section 8 (when read together with sections 6 and 7) is to protect and promote matters of cultural and spiritual value to Māori within resource management processes under the RMA. These sections provide a basis for the Council and Māori to pursue and promote a wide range of Māori values in the context of resource management processes and decisions. As previously noted, the Council has adopted a wide range of processes to enable this to happen and is engaging with iwi o Taranaki on future relationship agreements, such as Mana Whakahono a Rohe agreements.
46. We believe that the principles of the Treaty do not extend to providing iwi representatives with iPads or equivalent devices.

Is the Council required to provide iPads to iwi representatives?

47. From the above brief analysis of the law, it is clear that the Council is not obliged nor is it legally required to supply iPads or equivalent devices to iwi representatives under the principles of the Treaty of Waitangi.
48. The Council believes that not supplying iPads to iwi representatives on the Council's Standing Committees, does not prevent Māori from contributing to the decision making processes of the Council. The Council makes other mechanisms available, for example, the provision of hard copy agendas, that enable iwi to participate fully in those decision making processes.
49. Over twenty five people sit on TRC's committees as representatives/alternates from other organisations attending from four to eight meetings a year. All information relevant to the business of the Committees, including all Agenda papers, are available to all members in hard copy on request.
50. Furthermore, the Council believes that if a iwi representative member considers gaining an electronic or paper copy of the Agenda is insufficient for them to do their role, this is a matter for them to discuss with their iwi organisation. This ensures a fair and balanced treatment of individual elected members and non-elected representatives who have the resources and support of dedicated organisations behind them.
51. In addition, the Council has been mindful of the additional workloads and responsibilities of elected members of the full council as opposed to non-elected representatives on individual committees.
52. The Council considers that the benefits of providing iPads to elected members justifies the expenditure of public funds and ensures the prudent stewardship and the efficient and effective use of resources in the best interests of the region. It has exercised its discretionary judgement in this matter in a careful and considered manner.
53. A decision by the Council not to provide iPads to iwi representatives does not preclude iwi from participating fully in the Council's decision-making processes now or in future.
54. The Council has acted reasonably and in good faith to promote and provide opportunities for Māori to contribute to its decision-making processes and this will continue in future.

Decision-making considerations

55. 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

56. 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

57. 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

58. 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

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



Date 9 June 2020

Subject: **Iwi Member Induction**

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

Document: 2513187

Purpose

1. The purpose of this memorandum is to reconvene postponed iwi representative inductions following the next Consents & Regulatory and Policy & Planning Committee meetings.

Background

2. Iwi representatives were appointed to Council committees on 25 February 2020. It was proposed to hold inductions for these representatives following the subsequent committee meetings. Due to Covid-19 the whole Council remotely attended to the committee business and the inductions were postponed.

Discussion

3. While the inductions are primarily for new iwi committee members, all members are welcome to attend.
4. It is proposed to hold two sessions with presentations and discussion:
 - **21 July 2020** – presentation from Chief Executive about the Taranaki region and the Council; presentation from M Nield about the Council's administration and strategic plans; and a presentation from S Hall about land management programmes; and
 - **1 September 2020** – presentation from F McLay about policy and planning, advocacy and response, and consents and enforcement; and a presentation from G Bedford about compliance and state of the environment monitoring.
5. Previous induction programmes have been well received and provided an opportunity for attendees to learn about the Council's business and to share views.

Recommendation

That the Policy and Planning Committee:

- a) approves the induction programme.

Decision-making considerations

6. 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

7. 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

8. 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*.
9. 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

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



Whakatata te hau

Karakia to open and close meetings

Whakatata te hau ki te uru	Cease the winds from the west
Whakatata 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 whakamaui 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 whakamaui kia tina	Let there be certainty
Tina!	Secure it!
Hui e! Taiki e!	Draw together! Affirm!