



# **AGENDA**

## Operations & Regulatory

Wednesday 26 April 2023, 9.00am

## Operations and Regulatory Committee

26 April 2023 09:00 AM - 10:30 AM



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### **Whakataka te hau**

#### ***Karakia to open and close meetings***

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

### **Nau mai e ngā hua**

#### ***Karakia for kai***

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



**Date** 26 April 2023

**Subject:** **Operations and Regulatory Committee Minutes – 14 March 2023**

**Approved by:** A J Matthews, Director - Environment Quality  
S J Ruru, Chief Executive

**Document:**

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**Recommendations**

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes of the Operations and Regulatory Committee meeting of the Taranaki Regional Council at the Taranaki Regional Council, 47 Cloten Road, Stratford on Tuesday 14 March 2023 at 9.00am
- b) notes the recommendations were adopted by the Taranaki Regional Council on 4 April 2023.

**Matters arising**

**Appendices/Attachments**

Document: 3157374 Operations and Regulatory Minutes 14 March 2023



**Date** 14 March 2023, 9.00am  
**Venue:** Taranaki Regional Council Boardroom, 47 Cloten Road, Stratford  
**Document:** 3157374

<b>Present</b>		S W Hughes	<i>Chairperson</i>
		D M Cram	<i>Deputy Chairperson</i>
		M J Cloke	
		M G Davey	
		D H McIntyre	
		B J Bigham	
		D L Lean	(zoom)
		N W Walker	<i>ex officio</i>
		C L Littlewood	<i>ex officio</i>
		D Luke	Iwi Representative
		Ā White	Iwi Representative
		R Buttimore	Iwi Representative
<b>Attending</b>	Mr	S J Ruru	Chief Executive
	Ms	A J Matthews	Director - Environment Quality
	Mr	A D McLay	Director - Resource Management
	Mr	M J Nield	Director - Corporate Services
	Mr	D R Harrison	Director - Operations
	Ms	L Millar	Manager - Resource Consents
	Mrs	V McKay	Manager - Environmental Assurance
	Mr	J Glasgow	Compliance Manager
	Ms	L Miller	Manager - Resource Consents
	Miss	N A Chadwick	EA to Chief Executive and Chair
	Mrs	M G Jones	Governance Administrator
	Ms	K Holland	Communications Team Lead

*No members of the media*  
*No members of the public*

**Opening Karakia:** The meeting opened with a group karakia at 9.00am.

**Apologies:** Were received and sustained from Mr P Muir

**Conflicts of Interest:** Councillor McIntyre and Councillor Cram declared a conflicts of interest due to being Fonterra Shareholders.

**1. Confirmation of Minutes Operations and Regulatory Committee 7 February 2023**

**Recommended**

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes of the Operations and Regulatory Committee of the Taranaki Regional Council held on 7 February 2023 at Taranaki Regional Council 47 Cloten Road Stratford
- b) notes the recommendations therein were adopted by the Taranaki Regional Council on Tuesday 28 February 2023.

Davey/McIntyre

**2. Resource Consents Issued under Delegated Authority & Applications in Progress**

- 2.1 Ms L Millar, spoke to the memorandum to advise the Committee of consents granted, consents under application and of consent processing actions since the last meeting.

**Recommended**

That the Taranaki Regional Council:

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

Cloke/Davey

**3. Consent Monitoring Annual Reports**

- 3.1 Mrs V McKay spoke to the memorandum to advise the Committee of 24 tailored compliance monitoring reports, for the 2021-2022 reporting year.

**Recommended**

That the Taranaki Regional Council:

- a) received the 24 compliance monitoring reports
- b) noted any specific recommendations therein.

Walker/Cram

**4. Incidents, Compliance Monitoring Non Compliances and Enforcement Summary 17 January 2023 to 17 February 2023**

- 4.1 Mr J Glasgow spoke to the memorandum to update the Committee and provided a summary of the incidents, compliance monitoring non-compliances and enforcement for the period 17 January 2023 to 17 February 2023.

**Recommended**

That the Taranaki Regional Council:

- a) received the memorandum *Incident, Compliance Monitoring Non- Compliance and Enforcement Summary – 17 January 2023 to 17 February 2023*
- b) received the summary of the incidents, compliance monitoring non-compliances and enforcement for the period from 17 January 2023 to 17 February, noted the

action taken by staff acting under delegated authority and adopted the recommendations therein.

Cram/Cloke

## 5. PUBLIC EXCLUDED

In accordance with section 48(1) of the *Local Government Official Information and Meetings Act 1987*, resolves that the public is excluded from the following part of the proceedings of the Operations and Regulatory Committee Meeting on Tuesday 14 March 2023 for the following reason/s:

Item 9 – Prosecution- Under the Resource Management (National Environmental Standards [for Air Quality]) Regulations 2004

The matter to be considered while the public is excluded, the reason for passing this resolution in relation to the matter, and the specific grounds under section 48(1) of the *Local Government Official Information and Meetings Act 1987* are as follows:

1. <b>General subject of each matter to be considered</b>	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
Prosecution- Under the Resource Management (National Environmental Standards [for Air Quality]) Regulations 2004	<p>To protect the privacy of natural persons, including that of deceased natural persons.</p> <p>To maintain legal professional privilege.</p> <p>Making the information available 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.</p>	<p>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 for which good reason for withholding would exist under section 6 (a) and section 7 (2) (a) and (2) (g) of the <i>Local Government Official Information and Meetings Act 1987</i>.</p>

Cloke/Cram

There being no further business the Committee Chairperson, Councillor S W Hughes, declared the public meeting of the Operations and Regulatory Committee closed at 9.38am.

**Operations and  
Regulatory**

**Committee Chairperson:** \_\_\_\_\_

**S W Hughes Chair**





**Date** 26 April 2023

**Subject:** **Resource consents issued under delegated authority and applications in progress**

**Approved by:** A D McLay, Director – Resource Management  
S J Ruru, Chief Executive

**Document:** 3162559

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### **Purpose**

1. The purpose of this memorandum is to advise the Council of consents granted, consents under application and of consent processing actions since the last meeting. This information is summarised in attachments at the end of this report.

### **Executive summary**

2. Memorandum to advise the Council of recent consenting actions made under regional plans and the Resource Management Act 1991, in accordance with Council procedures and delegations.

### **Recommendation**

That the Taranaki Regional Council:

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

### **Background**

3. The attachments show resource consent applications, certificates of compliance and deemed permitted activities that have been investigated and decisions made by officers of the Taranaki Regional Council. They are activities having less than minor adverse effects on the environment, or having minor effects where affected parties have agreed to the activity. In accordance with sections 87BB, 104 to 108 and 139 of the Resource Management Act 1991, and pursuant to delegated authority to make these decisions, the Chief Executive or the Director – Resource Management, has allowed the consents, certificates of compliance and deemed permitted activities.
4. The exercise of delegations under the Resource Management Act 1991 is reported for Members' information. Under the delegations manual, consent processing actions are to be reported to the Consents and Regulatory Committee.

5. In addition to the details of the activity consented, the information provided identifies the Iwi whose rohe (area of interest) the activity is in. If the activity is in an area of overlapping rohe both Iwi are shown. If the activity is within, adjacent to, or directly affecting a statutory acknowledgement (area of special interest), arising from a Treaty settlement process with the Crown, that is also noted.
6. Also shown, at the request of Iwi members of the Council, is a summary of the engagement with Iwi and Hapū, undertaken by the applicant and the Council during the application process. Other engagement with third parties to the consent process is also shown. The summary shows the highest level of involvement that occurred with each party. For example, a party may have been consulted by the applicant, provided with a copy of the application by the Council, served notice as an affected party, lodged a submission and ultimately agreed with the consent conditions. In that case the summary would show only 'agreed with consent conditions', otherwise reporting becomes very complicated.
7. The attachment titled 'Consent Processing Information' includes the figure 'Consent Applications in Progress' which shows the total number of applications in the consent processing system over the last twelve months. The number of applications for the renewal of resource consents is also shown. The difference between the two is the number of new applications, including applications for a change of consent conditions. New applications take priority over renewal applications. Renewal applications are generally put on hold, with the agreement of the applicant, and processed when staff resources allow. A consent holder can continue to operate under a consent that is subject to renewal. The above approach is pragmatic and ensures there are no regulatory impediments to new activities requiring authorisation.
8. The attachment also includes:
  - Applications in progress table - the number of applications in progress at the end of each month (broken down into total applications and the number of renewals in progress) for this year and the previous two years
  - Potential hearings table outlining the status of applications where a hearing is anticipated and the decision maker(s) (e.g. a hearing panel) has been appointed
  - Consents issued table - the number of consents issued at the end of each month for this year and the previous two years
  - Breakdown of consents issued. This is the number of consents issued broken down by purpose – new, renewals, changes or review
  - Types of consents issued, further broken down into notification types – non-notified, limited notified or public notified
  - Number of times that the public and iwi were involved in an application process for the year so far
  - Application processing time extensions compared to the previous years
  - Consent type process shows the notification type including applications submitted on and the pre-hearing resolution numbers
  - Applications that have been returned because they are incomplete.

### **Decision-making considerations**

9. 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**

10. 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**

11. 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**

12. 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.

### **Legal considerations**

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

### **Appendices/Attachments**

Document 3161469: List of non-notified consents

Document 3161481: Schedule of non-notified consents

Document 3162551: Consents processing charts for Agenda

Operations and Regulatory Committee - Resource Consents issued under delegated authority and applications in progress

Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023

Discharge Permit							
Consent	Holder	Subtype	Industry Primary	Industry Secondary	Purpose Primary	Purpose Secondary	Activity Purpose
<a href="#">R2/0676-3.0</a>	Phillip Lewis John & Lorraine Ann Potroz	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/1948-4.0</a>	Highgarth Trusts Partnership	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/3024-3.0</a>	James & Donna-Maree Baker	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/3284-3.0</a>	Fembrooke Farms Trust	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/3424-3.0</a>	Darnley Farm Limited	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/3515-3.0</a>	Waihapa Trust	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/3581-3.0</a>	Yalumba Farm Trust	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/6496-2.0</a>	Greymouth Petroleum Turangi Limited	Air - Industry	Energy	Wellsite	Exploration and Production		Replace
<a href="#">R2/6497-2.0</a>	Greymouth Petroleum Turangi Limited	Air - Industry	Energy	Wellsite	Exploration and Production		Replace
<a href="#">R2/6537-2.0</a>	Beach Energy Resources NZ (Kupe) Limited	Land - Stormwater	Energy	Production Station	Exploration and Production		Replace
<a href="#">R2/6592-2.0</a>	Ngawhini Farm Limited	Land - Animal Waste	Agriculture	Farming - Dairy	Effluent disposal		Replace
<a href="#">R2/7063-2.1</a>	Blastways Limited	Air - Abrasive Blasting	Engineering		Abrasive Blasting		Replace
<a href="#">R2/10972-1.0</a>	Todd Energy Limited	Air - Industry	Energy	Wellsite	Exploration and Production		New
<a href="#">R2/10973-1.0</a>	Todd Energy Limited	Air - Industry	Energy	Wellsite	Exploration and Production		New
<a href="#">R2/10974-1.0</a>	Todd Energy Limited	Land - Stormwater	Energy	Wellsite	Exploration and Production		New
<a href="#">R2/10975-1.0</a>	Todd Energy Limited	Land - Hydraulic Fracturing	Energy	Wellsite	Exploration and Production		New
<a href="#">R2/10977-1.0</a>	Todd Energy Limited	Land - Earthworks	Energy	Wellsite	Exploration and Production		New
<a href="#">R2/11033-1.0</a>	Waka Kotahi NZ Transport Agency	Water - Stormwater	Central Government	Transport	Roading		New
<a href="#">R2/11036-1.0</a>	Waka Kotahi NZ Transport Agency	Water - Stormwater	Central Government	Transport	Roading		New
<a href="#">R2/11078-1.0</a>	Greymouth Petroleum Turangi Limited	Land - DWI	Energy	Wellsite	Exploration and Production		New
Land Use Consent							
Consent	Holder	Subtype	Industry Primary	Industry Secondary	Purpose Primary	Purpose Secondary	Activity Purpose
<a href="#">R2/11034-1.0</a>	Waka Kotahi NZ Transport Agency	Structure - Outlet	Central Government	Transport	Roading		New
<a href="#">R2/11037-1.0</a>	Waka Kotahi NZ Transport Agency	Earthworks	Central Government	Transport	Roading		New
<a href="#">R2/11077-1.0</a>	Catalina Trusts 1 & 2 Trading as Catalina Farms	Stockholding	Agriculture	Farming - Dairy	Effluent disposal		New
Water Permit							
Consent	Holder	Subtype	Industry Primary	Industry Secondary	Purpose Primary	Purpose Secondary	Activity Purpose
<a href="#">R2/0880-4.0</a>	IHC New Zealand Inc	Take Surface Water	Horticulture		Irrigation - Crops		Replace
<a href="#">R2/1223-4.1</a>	Lander & Co	Take Surface Water	Horticulture		Irrigation - Crops	Stock water	New
<a href="#">R2/6499-2.0</a>	Greymouth Petroleum Turangi Limited	Take produced water	Energy	Wellsite	Exploration and Production		Replace
<a href="#">R2/10976-1.0</a>	Todd Energy Limited	Take produced water	Energy	Wellsite	Exploration and Production		New
<a href="#">R2/11044-1.0</a>	Waka Kotahi NZ Transport Agency	Take Groundwater	Central Government	Transport	Roading		New

## Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023

[R2/0676-3.0](#)

Phillip Lewis John & Lorraine Ann Potroz

**Commencement Date:** 14 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Location:** 683R Pembroke Road, Pembroke  
To discharge farm dairy effluent onto land

**Application Purpose:** Replace

### Rohe:

Ngaa Rauru Kiitahi (Statutory Acknowledgement)

Ngāruahine (Statutory Acknowledgement)

Ngāti Maru

Ngāti Ruanui (Statutory Acknowledgement)

### Engagement or consultation:

Te Kaahui o Rauru

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

Te Korowai o Ngāruahine Trust

Response received

### Comments from Ngāruahine

*There has been no pre-application consultation from the applicant with Te Korowai or the relevant Hapū.*

*We acknowledge that Section 36A of the RMA does not require applicants to consult with anyone about resource consent applications.*

*However, it is the expectation of Te Korowai that applicants and consultants are following best practice for the planning industry by engaging early with Hapū and Iwi to identify potential issues.*

*The applicant has only acknowledged one (Konini) of the five effected Statutory Acknowledgments in this application. Whilst we understand the applicant must only identify the closest stream/river closest on the TRC form, it is clear there are multiple awa effected in this application i.e., the Mangarangi Stream, Paetahi Stream, Patea River, and the Piakau Stream.*

*Te Korowai acknowledges this application is for a renewal of a discharge permit to land with existing storage. This aligns with bottom lines of Te Uru Taiao o Ngāruahine which opposes discharges of any type directly to water bodies within the rohe of Ngāruahine. This is regardless of whether the discharge is treated or untreated.*

*It is Te Korowai's expectation, stormwater is managed on site and not discharged directly into rivers or natural wetlands per Policy 1.8 of the Taiao Plan.*

*Te Korowai will advocate for the fencing and riparian planting of all tributaries to the Kahouri Stream, Mangarangi Stream, Patea River, Konini Stream and the Paetahi Stream to provide the maximum protection available to these valued waterways.*

*It is our expectation that this goes beyond the minimum requirements of TRC's Riparian Management Plans and is of a width of 20 metres.*

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## **Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023**

*Any increase in riparian planting offers enhanced protection to all effected Statutory Acknowledgments and their tributaries which is significant given the predicted increase in precipitation for the region and ongoing proliferation of effluent discharge.*

*Te Korowai would like to a map of the applicant's effluent discharge points given there are multiple awa effected in this application.*

*We request this application be sent back to the applicant and re-lodged once adequate stormwater diversion systems are implemented. This is to stop any effluent run-off from stormwater, into the tributaries or wetland.*

*We request that the applicant develop and identify buffer zones within the yellow lines on the map provided which restrict the application of effluent and ensure a higher level of protection for the multiple streams associated with this consent application.*

### *Response and considerations during processing of application*

*Thank you for providing council with your comments, on application 22-00676-3.0 Phillip & Lorraine Potroz*

*As you are aware, almost every dairy discharge application received by council is a replacement of an existing activity and a controlled activity under the Regional fresh water plan for Taranaki. Applications, which meet the standards/terms/conditions of a controlled activity must be granted.*

*However, the council sets the terms and conditions of a resource consent, granted under a controlled activity. When granted, the activity will be subject to the conditions reasonably necessary to avoid or mitigate adverse environmental effects in accordance with the Regional Freshwater Plan for Taranaki.*

*With the introduction of a new application form, for the discharge of dairy farm effluent, the form requires the applicant to provide more detail than they have in the past, which will improve the quality of that information, lodged with council.*

*In regards to stormwater diversion (uncontaminated storm water only) for existing storage, if the storage is sufficient in volume, there is no requirement to have stormwater diversion.*

*Nevertheless, if the dairy effluent storage calculation report (which is undertaken by a suitably qualified person) advises, uncontaminated storm water diversion must be diverted to ensure storage facility can operate efficiently and maintain capacity, then a diversion system must be installed and maintained.*

*All farm dairy effluent discharge consent are subject to a monitoring programme, ensuring conditions of their consent are adhered to.*

*Thank you for your response and council will pass on your comments, to the applicant.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/0880-4.0](#)

IHC New Zealand Inc

**Commencement Date:** 08 Mar 2023

**Expiry Date:** 01 Jun 2038

**Review Dates:** June 2026, June 2029, June 2032, June 2035

**Activity Class:** Discretionary

**Application Purpose:** Replace

**Location:** 765 Carrington Road, New Plymouth

To take and use water from the Te Henui Stream for horticulture irrigation purposes

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Ngāti Te Whiti Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Response received

Comments from Te Atiawa

*Te Kotahitanga o Te Atiawa Trust noted that no engagement had been undertaken by the applicant with Te Kotahitanga o Te Atiawa Trust as part of both the previous three consent applications, as well as the consent renewal applied for here.*

*Te Atiawa noted that the consent renewal application is not in accordance with a number of policies of Tai Tangata, Tai Whenua and Tai Ao and wished to be engaged by the applicant around this consent renewal.*

Response and considerations during processing of application

*A Section 92 request for further information was sent seeking for the applicant to engage with Te Kotahitanga o Te Atiawa Trust. As part of the Section 92 process, the applicant engaged with Te Kotahitanga o Te Atiawa Trust and Ngāti Te Whiti Hapū around the consent renewal application. The applicant met onsite with Iwi and Hapū representatives. Te Atiawa requested some additional consent conditions whereby the water would only be used for horticulture purposes and the water take remain within the property, these conditions were agreed to by the applicant and added to the consent.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/10972-1.0](#)

Todd Energy Limited

**Commencement Date:** 28 Feb 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2027, June 2033

**Activity Class:** Restricted discretionary

**Location:** Mangahewa-D wellsite, 674  
Rimutauteka Road, Wainui

**Application Purpose:** New

To discharge emissions to air from flaring of hydrocarbons and miscellaneous emissions associated with drill stem testing, well clean-up, well testing and production testing at the Mangahewa-D wellsite

**Rohe:**

Ngāti Maru

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Otaraua Hapū Trust

Consulted by applicant

Pukerangiora Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

Consulted by applicant

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received



**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/10973-1.0](#)

Todd Energy Limited

**Commencement Date:** 28 Feb 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2027, June 2033

**Activity Class:** Restricted discretionary

**Location:** Mangahewa-D wellsite, 674  
Rimutauteka Road, Wainui

**Application Purpose:** New

To discharge emissions to air during flaring from well workovers and in emergency situations, and to discharge miscellaneous emissions associated with production activities at the Mangahewa-D wellsite

**Rohe:**

Ngāti Maru

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Otaraua Hapū Trust

Consulted by applicant

Pukerangiora Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

Consulted by applicant

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/10974-1.0](#)

Todd Energy Limited

**Commencement Date:** 28 Feb 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2027, June 2033

**Activity Class:** Controlled

**Location:** Mangahewa-D wellsite, 674  
Rimutauteka Road, Wainui

**Application Purpose:** New

To discharge stormwater from skimmer pits at the Mangahewa-D wellsite onto and into  
land

**Rohe:**

Ngāti Maru

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Otaraua Hapū Trust

Consulted by applicant

Pukerangiora Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

Consulted by applicant

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/10975-1.0](#)

Todd Energy Limited

**Commencement Date:** 28 Feb 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2023, June 2024, June 2025, June 2026, June 2027, June 2028, June 2029, June 2030, June 2031, June 2032, June 2033, June 2034, June 2035, June 2036, June 2037, June 2038

**Activity Class:** Discretionary

**Application Purpose:** New

**Location:** Mangahewa-D wellsite, 674  
Rimutauteka Road, Wainui

To discharge water based hydraulic fracturing fluids into land at depths greater than 3,200 mTVDss beneath the Mangahewa-D wellsite

**Rohe:**

Ngāti Maru

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Otaraua Hapū Trust

Consulted by applicant

Pukerangiora Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

Consulted by applicant

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/10976-1.0](#)

Todd Energy Limited

**Commencement Date:** 28 Feb 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:**

**Activity Class:** Controlled

**Location:** Mangahewa-D wellsite, 674  
Rimutauteka Road, Wainui

**Application Purpose:** New

To take groundwater, including the incidental take of heat and energy, that may be encountered as produced water during hydrocarbon exploration and production activities at the Mangahewa-D wellsite

**Rohe:**

Ngāti Maru

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Otaraua Hapū Trust

Consulted by applicant

Pukerangiora Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

Consulted by applicant

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/10977-1.0](#)

Todd Energy Limited

**Commencement Date:** 28 Feb 2023

**Expiry Date:** 01 Jun 2028

**Review Dates:**

**Activity Class:** Controlled

**Location:** Mangahewa-D wellsite, 674  
Rimutauteka Road, Wainui

**Application Purpose:** New

To discharge stormwater and sediment from earthworks associated with the extension of  
Mangahewa-D wellsite

**Rohe:**

Ngāti Maru

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Otaraua Hapū Trust

Consulted by applicant

Pukerangiora Hapū

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

No return correspondence was received

Te Rūnanga o Ngāti Maru (Taranaki) Trust

Consulted by applicant

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/11033-1.0](#)

Waka Kotahi NZ Transport Agency

**Commencement Date:** 01 Mar 2023

**Expiry Date:** 01 Jun 2033

**Review Dates:** June 2023, June 2024, June 2027

**Activity Class:** Controlled

**Location:** SH3/Princess Street intersection and Manukorihi Park

**Application Purpose:** New

To discharge stormwater & sediment arising from earthworks into the Waitara River and an unnamed tributary of the Waitara River

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Manukorihi Hapū	Consulted by applicant
Ngāti Rahiri Hapū Trust	Consulted by applicant
Otaraua Hapū Trust	Consulted by applicant
Pukerangiora Hapū	Consulted by applicant
Puketapu Hapū	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Discussions with Council

Considerations during processing of application

*No written feedback has been provided to Council by Te Kotahitanga o Te Atiawa, however Kim Giles (Principal Planner) and Sam Morris (Consenting Officer) met with Sarah Mako of Te Kotahitanga o Te Atiawa to discuss the consent application.*

*A Cultural Impact Assessment (CIA) was prepared by Te Kotahitanga o Te Atiawa as part of the consent application.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/11034-1.0](#)

Waka Kotahi NZ Transport Agency

**Commencement Date:** 01 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2025, June 2030, June 2035

**Activity Class:** Discretionary

**Location:** SH3/Princess Street intersection and Manukorihi Park

**Application Purpose:** New

To install an outfall structure on the bank of the Waitara River

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Manukorihi Hapū	Consulted by applicant
Ngāti Rahiri Hapū Trust	Consulted by applicant
Otaraua Hapū Trust	Consulted by applicant
Pukerangiora Hapū	Consulted by applicant
Puketapu Hapū	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Discussions with Council

Considerations during processing of application

*No written feedback has been provided to Council by Te Kotahitanga o Te Atiawa, however Kim Giles (Principal Planner) and Sam Morris (Consenting Officer) met with Sarah Mako of Te Kotahitanga o Te Atiawa to discuss the consent application.*

*A Cultural Impact Assessment (CIA) was prepared by Te Kotahitanga o Te Atiawa as part of the consent application.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/11036-1.0](#)

Waka Kotahi NZ Transport Agency

**Commencement Date:** 01 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2025, June 2030, June 2035

**Activity Class:** Controlled

**Location:** SH3/Princess Street intersection and Manukorihi Park

**Application Purpose:** New

To discharge stormwater into the Waitara River and an unnamed tributary of the Waitara River

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Manukorihi Hapū	Consulted by applicant
Ngāti Rahiri Hapū Trust	Consulted by applicant
Otaraua Hapū Trust	Consulted by applicant
Pukerangiora Hapū	Consulted by applicant
Puketapu Hapū	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Discussions with Council

Considerations during processing of application

*No written feedback has been provided to Council by Te Kotahitanga o Te Atiawa, however Kim Giles (Principal Planner) and Sam Morris (Consenting Officer) met with Sarah Mako of Te Kotahitanga o Te Atiawa to discuss the consent application.*

*A Cultural Impact Assessment (CIA) was prepared by Te Kotahitanga o Te Atiawa as part of the consent application.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/11037-1.0](#)

Waka Kotahi NZ Transport Agency

**Commencement Date:** 01 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2025, June 2030, June 2035

**Activity Class:** Discretionary

**Location:** SH3/Princess Street intersection and Manukorihi Park

**Application Purpose:** New

To discharge water within 100 metres of a natural wetland(s)

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Manukorihi Hapū	Consulted by applicant
Ngāti Rahiri Hapū Trust	Consulted by applicant
Otaraua Hapū Trust	Consulted by applicant
Pukerangiora Hapū	Consulted by applicant
Puketapu Hapū	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Discussions with Council

Considerations during processing of application

*No written feedback has been provided to Council by Te Kotahitanga o Te Atiawa, however Kim Giles (Principal Planner) and Sam Morris (Consenting Officer) met with Sarah Mako of Te Kotahitanga o Te Atiawa to discuss the consent application.*

*A Cultural Impact Assessment (CIA) was prepared by Te Kotahitanga o Te Atiawa as part of the consent application.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/11044-1.0](#)

Waka Kotahi NZ Transport Agency

**Commencement Date:** 01 Mar 2023

**Expiry Date:** 01 Jun 2028

**Review Dates:** June 2025, June 2023

**Activity Class:** Controlled

**Location:** SH3/Princess Street intersection and Manukorihi Park

**Application Purpose:** New

To take groundwater for the purposes of dewatering associated with earthworks

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

Manukorihi Hapū	Consulted by applicant
Ngāti Rahiri Hapū Trust	Consulted by applicant
Otaraua Hapū Trust	Consulted by applicant
Pukerangiora Hapū	Consulted by applicant
Puketapu Hapū	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Consulted by applicant
Te Kotahitanga o Te Atiawa Trust	Discussions with Council

Considerations during processing of application

*No written feedback has been provided to Council by Te Kotahitanga o Te Atiawa, however Kim Giles (Principal Planner) and Sam Morris (Consenting Officer) met with Sarah Mako of Te Kotahitanga o Te Atiawa to discuss the consent application.*

*A Cultural Impact Assessment (CIA) was prepared by Te Kotahitanga o Te Atiawa as part of the consent application.*

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## Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023

[R2/11077-1.0](#)

Catalina Trusts 1 & 2 Trading as Catalina Farms

**Commencement Date:** 09 Mar 2023

**Expiry Date:** 01 Jun 2029

**Review Dates:** June 2024, June 2026, June 2028

**Activity Class:** Discretionary

**Location:** 178 Airport Drive, New Plymouth

**Application Purpose:** New

To use land for holding cattle in a stockholding area

### Rohe:

Te Atiawa (Statutory Acknowledgement)

### Engagement or consultation:

Puketapu Hapū

Response received

Te Kotahitanga o Te Atiawa Trust

Response received

### Comments from Te Atiawa

*Puketapu hapū and Te Kotahitanga o Te Atiawa commended the applicant for reaching out for pre-application advice and acknowledges that the applicant has fenced and planted the waterbodies and no longer discharges to water. They understand the benefit of a feedpad during the winter months, and that all of the effluent produced on the pad should be discharged to land, not water.*

*They have recommended that cultural monitoring be done during the construction of the pad due to the incomplete archaeological record of the area and the close proximity to Puketapu Pā, and that appropriate silt and sediment controls are put in place during construction.*

### Considerations during processing of application

*This application is for a land use consent. The earthworks associated with the activity are carried out as a permitted activity under the New Plymouth District Plan. Silt and sediment controls are managed in accordance with permitted activities requirements.*

*This consent is required to manage the discharge of contaminants from the site as the stockholding area falls within 50 m of a farm drain. The associated feedpad is going to be used throughout the winter period. This will reduce nutrient runoff to waterways during winter as more effluent will be captured by the feedpad and delivered to the effluent treatment system. This system has been designed in accordance with best practice set down by DairyNZ guidelines, Practice Note 27- Dairy Farm Infrastructure, to prevent effluent flowing off the pad and ensure it will be collected and stored in the effluent storage facility.*

*The land where the feedpad will be laid is adjacent to the milking shed which is mostly flat with some fill areas. The applicant has stated that they will not disturb topsoil that is deeper than 3 to 4 inches during construction. They advised they do not wish to resource cultural monitoring of the earthworks but are happy for the Iwi or Hapū to contact them to discuss the activity. They have agreed to an additional consent condition for accidental discovery protocols which requires notification to the Taranaki Regional Council and Tangata Whenua of the discovery of artefacts or remains and works to stop immediately. In the absence of a condition which allows for cultural monitoring, Puketapu Hapū and Te Kotahitanga o Te Atiawa have stated their opposition to the proposal.*

## Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023

[R2/11078-1.0](#)

Greyhound Petroleum Turangi Limited

**Commencement Date:** 08 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2024, June 2025, June 2026, June 2027, June 2028, June 2029, June 2030, June 2031, June 2032, June 2033, June 2034, June 2035, June 2036, June 2037, June 2038

**Activity Class:** Discretionary

**Application Purpose:** New

**Location:** Turangi-C wellsite, 160 Turangi Road, Motunui

To discharge contaminants to land via deep well injection at the Turangi-C wellsite, at depths below 1000 mTVD (True Vertical Depth)

### **Rohe:**

Te Atiawa (Statutory Acknowledgement)

### **Engagement or consultation:**

Ducal Products Limited

Written approval provided

Ngāti Rahiri Hapū Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Response received

### Comments from Te Atiawa

*Whilst Ngāti Rāhiri Hapū are opposed to the disposal of all contaminants within their rohe, including the use of DWI, they understand the need for the applicant to discharge liquid wastes from their operation. Ngāti Rāhiri Hapū will therefore not oppose Council granting consent for the activity. The Hapū also commented that the proposal would enable the protection of the Parahaki Stream and its tributaries, which is of high importance to the Hapū and Te Atiawa Iwi.*

### Considerations during processing of application

*Council acknowledge the opposition of Ngāti Rāhiri Hapū to the use of DWI within their rohe, and have considered the cultural effects of the proposal on the Hapū when making a decision recommendation. However, based on the available options it is considered that the use of DWI at the Turangi-C site is the most suitable discharge method available, and will avoid adverse environmental effects to more sensitive surface environments.*

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/1223-4.1](#)

Lander & Co

**Commencement Date:** 28 Mar 2023

**Expiry Date:** 01 Jun 2038

**Review Dates:**

**Activity Class:** Discretionary

**Location:** 36 Wairere Road, Ohangai

**Application Purpose:** New

To take and use water from a reservoir on an unnamed tributary of the Otoki Stream for horticultural irrigation, stock and domestic purposes

**Rohe:**

Ngāti Ruanui (Statutory Acknowledgement)

**Engagement or consultation:**

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

Te Rūnanga o Ngāti Ruanui Trust

Applicant provided application

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[R2/1948-4.0](#)

Highgarth Trusts Partnership

**Commencement Date:** 27 Feb 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Location:** 404 Warwick Road, Stratford

**Application Purpose:** Replace

To discharge farm dairy effluent onto land

**Rohe:**

Ngāti Ruanui

**Engagement or consultation:**

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

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## Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023

[R2/3024-3.0](#)

James & Donna-Maree Baker

**Commencement Date:** 17 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Application Purpose:** Replace

**Location:** 395 Rakaupiko Road, Patea  
To discharge farm dairy effluent onto land

### Rohe:

Ngaa Rauru Kiitahi (Statutory Acknowledgement)

Ngāti Ruanui (Statutory Acknowledgement)

### Engagement or consultation:

Te Kaahui o Rauru

No return correspondence was received

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

[R2/3284-3.0](#)

Fernbrooke Farms Trust

**Commencement Date:** 10 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Application Purpose:** Replace

**Location:** 393R Pembroke Road, Pembroke  
To discharge farm dairy effluent onto land

### Rohe:

Ngāruahine (Statutory Acknowledgement)

Ngāti Maru

Ngāti Ruanui

### Engagement or consultation:

Te Rūnanga o Ngāti Maru (Taranaki) Trust

No return correspondence was received

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

Te Korowai o Ngāruahine Trust

Response received

### Comments from Ngāruahine

*Te Korowai acknowledges this application is for a renewal of a discharge permit to land with existing storage. This aligns with bottom lines of Te Uru Taiao o Ngāruahine which opposes discharges of any type directly to water bodies within the rohe of Ngāruahine. This is regardless of whether the discharge is treated or untreated.*

## **Non-notified authorisations issued by the Taranaki Regional Council between 25 Feb 2023 and 31 Mar 2023**

*There are two Statutory Acknowledgment streams that flow through the application site. Therefore, Te Korowai will oppose any modification to Mangarangi Stream or the Kahouri Stream as per Policy 5.8 of Te Uru Taiao o Ngāruahine.*

*It appears that over time the small tributary to the Kahouri Stream closest to Pembroke Road, and East bound to the road entrance of the application site has been piped and covered.*

*Te Korowai advocates for daylighting of any piped streams as per Policies 5.8 and 5.10 of Te Uru Taiao o Ngāruahine.*

*Te Korowai will advocate for the fencing and riparian planting of all tributaries to both the Kahouri Stream and the Mangarangi Stream to provide the maximum protection available to this valued waterway. It is our expectation that this goes beyond the minimum requirements of TRC's Riparian Management Plans and is of a width of 20 metres.*

*Any increase in riparian planting offers enhanced protection to the Kahouri Stream and its tributaries which is significant given the predicted increase in precipitation for the region and ongoing proliferation of effluent discharge.*

### *Response and considerations during processing of application*

*We have provided below, a response which hopefully provides a better understanding of the Taranaki Regional Council's (the Council) position and steps which were taken during the assessment of this application.*

#### *The National Policy Statement for Freshwater Management (NPS-FM)*

*The NPS-FM contains a hierarchy of obligations (as expressed in the objective of the NPS-FM) that the Council must have regard to in its assessment of the effects of a proposed activity for which resource consent is sought. This means as part of its assessment of an application, the Council must consider whether a proposed activity will*

- first, prioritise the health and well-being of a particular water body/freshwater ecosystem*
- second, the health and needs of people and*
- third, the ability of people and communities to provide for their social, economic and cultural well-being.*

*Similarly, the Council must have regard to the objectives and policies of the Regional Policy Statement for Taranaki (RPS) and the Regional Freshwater Plan for Taranaki (RFPW). The situation is more challenging in this case where the activity is a controlled activity.*

*Almost every application for a farming dairy effluent consent received is for a replacement of an existing activity, and a controlled activity under Rules 35 & 36 of the Regional Freshwater Plan for Taranaki. The Council must have regard to the NPS-FM, the RPS as well as the RFPW when considering a resource consent application. If an activity is described as a controlled activity, Council must grant a resource consent, and the power to impose conditions on the consent is restricted to the matters over which control is reserved (sections 87A and 104A of the Resource Management Act). Rules 35 and 36 of the RFPW do not include any matters of control that expressly allow for the consideration of matters such as those expressed in the NPS-FM objective. Given that the Council can only consider policies that relate to the matters over which the Council has reserved control through the plan itself, the Council is unable to take into account matters that fall outside this scope.*

*In terms of the notification assessment and when deciding whether a person is an affected person, the Council is limited in terms of matters that it can take into account when determining an application for a controlled activity.*

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/3424-3.0](#)

Darnley Farm Limited

**Location:** 308 Ingahape Road, Manutahi  
To discharge farm dairy effluent onto land

**Rohe:**

Ngāti Ruanui

**Engagement or consultation:**

Te Rūnanga o Ngāti Ruanui Trust

**Commencement Date:** 23 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Application Purpose:** Replace

No return correspondence was received

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[R2/3515-3.0](#)

Waihapa Trust

**Location:** 397 Wingrove Road, Pukengahu  
To discharge farm dairy effluent onto land

**Rohe:**

Ngāti Ruanui

**Engagement or consultation:**

Te Rūnanga o Ngāti Ruanui Trust

**Commencement Date:** 07 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Application Purpose:** Replace

Responded they had no comment to make

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/3581-3.0](#)

Yalumba Farm Trust

**Commencement Date:** 22 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Application Purpose:** Replace

**Location:** 183 Upper Manutahi Road,  
Manutahi

To discharge farm dairy effluent onto land

**Rohe:**

Ngāti Ruanui

**Engagement or consultation:**

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/6496-2.0](#)

Greymouth Petroleum Turangi Limited

**Commencement Date:** 31 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2027, June 2033

**Activity Class:** Controlled

**Location:** Turangi-A Production Station, 126  
Turangi Road, Motunui (Property owner: BA  
& JM McKenzie)

**Application Purpose:** Replace

To discharge emissions to air from flaring of hydrocarbons and miscellaneous emissions associated with drill stem testing, well clean-up, well testing and production testing at the Turangi-A Production Station

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

B & J McKenzie Trust

Written approval provided

Kim Richard Topless

Written approval provided

Ngāti Rahiri Hapū Trust

Consulted by applicant

Ralston John Topless

Written approval provided

Rod and Janice Weeks

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Response received

Comments from Te Atiawa

*The on-going use and activity at the wellsite has an effect on the relationship of Ngāti Rahiri with their culture and traditions with their ancestral lands, water, sites, wahi tapu and other taonga. We have aligned the proposal to renew the consents with the Te Atiawa iwi environmental management plan Tai Whenua, Tai Tangata, Tai Ao and determined the on-going activities will have a cultural effect.*

*The assessment of the relevant policy documents provided in the application was considered inadequate*

*There was insufficient consultation undertaken with Te Atiawa and Ngāti Rāhiri Hapū*

*For the values of Te Atiawa and Ngāti Rāhiri Hapū to be considered a request for further information is required, as well as the identification of Te Kotahitanga o Te Atiawa Trust and Ngāti Rāhiri Hapū as affected parties*

*No further return correspondence was received from Te Kotahitanga o Te Atiawa Trust following email notification of the change application/application addendum.*

Considerations during processing of application

*The applicant engaged with Te Kotahitanga o Te Atiawa Trust regarding the replacement consents for the Turangi-A Production Station/Wellsite. At the request of Te Kotahitanga o Te Atiawa Trust, the applicant then consulted directly with Ngāti Rāhiri Hapū.*

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/6497-2.0](#)

Greymouth Petroleum Turangi Limited

**Commencement Date:** 31 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:** June 2033, June 2039

**Activity Class:** Restricted discretionary

**Location:** Turangi-A Production Station, 126  
Turangi Road Upper, Motunui

**Application Purpose:** Replace

To discharge emissions to air during flaring from well workovers and in emergency situations, and to discharge miscellaneous emissions associated with wellsite production activities at the Turangi-A Production Station

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

B & J McKenzie Trust

Written approval provided

Kim Richard Topless

Written approval provided

Ngāti Rahiri Hapū Trust

Consulted by applicant

Ralston John Topless

Written approval provided

Rod and Janice Weeks

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Response received

Comments from Te Atiawa

*The on-going use and activity at the wellsite has an effect on the relationship of Ngāti Rahiri with their culture and traditions with their ancestral lands, water, sites, wahi tapu and other taonga. We have aligned the proposal to renew the consents with the Te Atiawa iwi environmental management plan Tai Whenua, Tai Tangata, Tai Ao and determined the on-going activities will have a cultural effect.*

*The assessment of the relevant policy documents provided in the application was considered inadequate*

*There was insufficient consultation undertaken with Te Atiawa and Ngāti Rāhiri Hapū*

*For the values of Te Atiawa and Ngāti Rāhiri Hapū to be considered a request for further information is required, as well as the identification of Te Kotahitanga o Te Atiawa Trust and Ngāti Rāhiri Hapū as affected parties*

*No further return correspondence was received from Te Kotahitanga o Te Atiawa Trust following email notification of the change application/application addendum.*

Considerations during processing of application

*The applicant engaged with Te Kotahitanga o Te Atiawa Trust regarding the replacement consents for the Turangi-A Production Station/Wellsite. At the request of Te Kotahitanga o Te Atiawa Trust, the applicant then consulted directly with Ngāti Rāhiri Hapū.*

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/6499-2.0](#)

Greymouth Petroleum Turangi Limited

**Commencement Date:** 21 Mar 2023

**Expiry Date:** 01 Jun 2039

**Review Dates:**

**Activity Class:** Controlled

**Location:** Turangi-A Production Station, 126  
Turangi Road, Motunui

**Application Purpose:** Replace

To take groundwater, including the incidental take of heat and energy, that may be encountered as produced water during hydrocarbon exploration and production activities at the Turangi-A Production Station

**Rohe:**

Te Atiawa (Statutory Acknowledgement)

**Engagement or consultation:**

B & J McKenzie Trust

Written approval provided

Kim Richard Topless

Written approval provided

Ngāti Rahiri Hapū Trust

Consulted by applicant

Ralston John Topless

Written approval provided

Rod and Janice Weeks

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Consulted by applicant

Te Kotahitanga o Te Atiawa Trust

Response received

Comments from Te Atiawa

*The on-going use and activity at the wellsite has an effect on the relationship of Ngāti Rahiri with their culture and traditions with their ancestral lands, water, sites, wahi tapu and other taonga. We have aligned the proposal to renew the consents with the Te Atiawa iwi environmental management plan Tai Whenua, Tai Tangata, Tai Ao and determined the on-going activities will have a cultural effect.*

*The assessment of the relevant policy documents provided in the application was considered inadequate*

*There was insufficient consultation undertaken with Te Atiawa and Ngāti Rāhiri Hapū*

*For the values of Te Atiawa and Ngāti Rāhiri Hapū to be considered a request for further information is required, as well as the identification of Te Kotahitanga o Te Atiawa Trust and Ngāti Rāhiri Hapū as affected parties*

*No further return correspondence was received from Te Kotahitanga o Te Atiawa Trust following email notification of the change application/application addendum.*

Considerations during processing of application

*The applicant engaged with Te Kotahitanga o Te Atiawa Trust regarding the replacement consents for the Turangi-A Production Station/Wellsite. At the request of Te Kotahitanga o Te Atiawa Trust, the applicant then consulted directly with Ngāti Rāhiri Hapū.*

**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/6537-2.0](#)

Beach Energy Resources NZ (Kupe) Limited

**Commencement Date:** 21 Mar 2023

**Expiry Date:** 01 Jun 2037

**Review Dates:** June 2027, June 2032

**Activity Class:** Controlled

**Location:** Lower Inaha Road, Manaia

**Application Purpose:** Replace

To discharge treated stormwater from a horizontal directional drilling site onto and into land

**Rohe:**

Ngāruahine (Statutory Acknowledgement)

**Engagement or consultation:**

Te Korowai o Ngāruahine Trust

Consulted by applicant

Te Korowai o Ngāruahine Trust

No return correspondence was received

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[R2/6592-2.0](#)

Ngāwhini Farm Limited

**Commencement Date:** 24 Mar 2023

**Expiry Date:** 01 Dec 2046

**Review Dates:** June 2028, June 2034, June 2040

**Activity Class:** Controlled

**Location:** 211 Ararata Road, Hawera

**Application Purpose:** Replace

To discharge farm dairy effluent onto land

**Rohe:**

Ngāti Ruanui

**Engagement or consultation:**

Te Rūnanga o Ngāti Ruanui Trust

No return correspondence was received

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**Non-notified authorisations issued by the Taranaki Regional Council  
between 25 Feb 2023 and 31 Mar 2023**

[R2/7063-2.1](#)

Blastways Limited

**Commencement Date:** 16 Mar 2023

**Expiry Date:** 01 Jun 2058

**Review Dates:**

**Activity Class:** Controlled

**Location:** 1114 Skeet Road, Kapuni

**Application Purpose:** Replace

To discharge emissions into the air from abrasive blasting operations at a permanent site on Skeet Road, Kapuni

**Rohe:**

Ngāruahine (Statutory Acknowledgement)

**Engagement or consultation:**

Ainsley, Philip, Roger & Lynne Luscombe

Written approval provided

Te Korowai o Ngāruahine Trust

Applicant provided application

Te Korowai o Ngāruahine Trust

Response received

Comments from Ngāruahine

*A summary of their comments is provided below:*

*No pre-application consultation has been undertaken by the applicant. Although consultation is not a legislative requirement, Ngāruahine expect applicants and consultants to follow best practice and engage with Hapū and Iwi early to identify potential issues.*

*The application documentation incorrectly states that the Ngāruahine Iwi Environmental Management Plan is not a public document, despite it being lodged with all relevant Council's in September 2021.*

*It is acknowledged that the applicant is using booths to contain discharges, and Ngāruahine are satisfied that the applicant has been compliant with their current consent conditions.*

*Ngāruahine support the existing conditions of consent being rolled over on this consent application.*

Considerations during processing of application

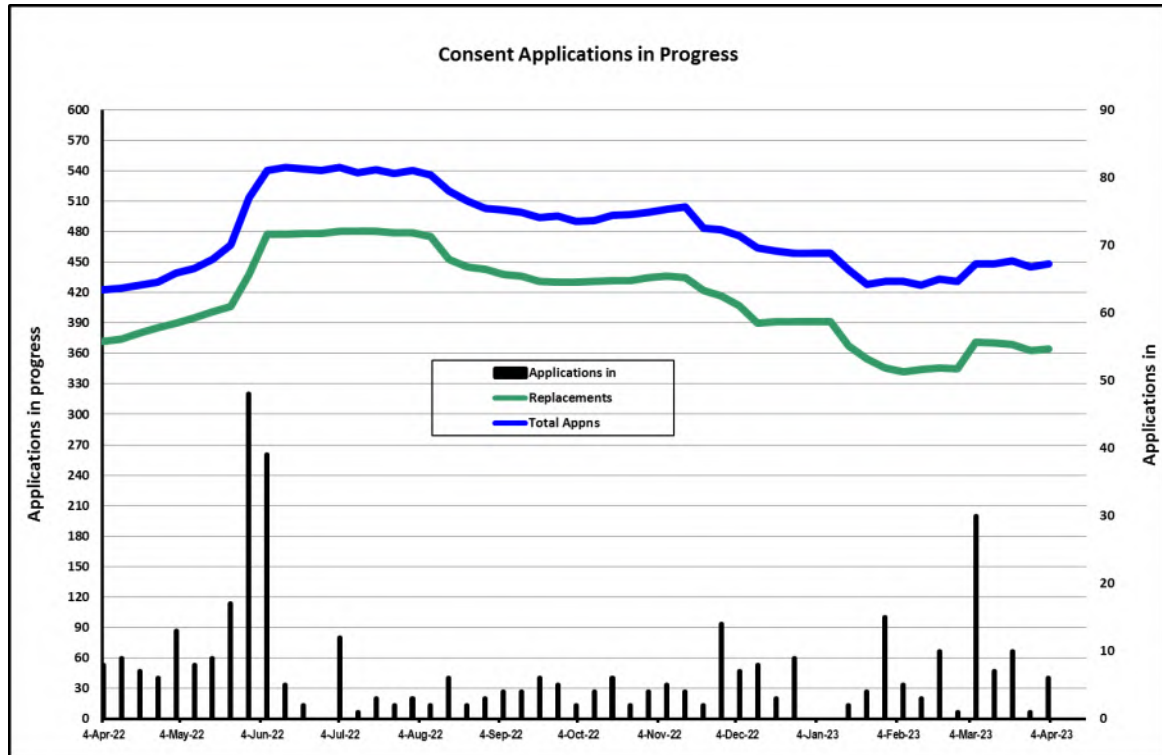
*Council contacted the agent following receipt of the application to inform them that the Ngāruahine Iwi Environmental Management Plan is available on the Te Korowai o Ngāruahine Trust website. Council also recommended that early engagement with Iwi and Hapū be undertaken in future.*

*Council forwarded a copy of the correspondence received from Ngāruahine to the agent, for future reference.*

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## Consent Processing Information

### 1) Applications in progress



### 2) Month Ending

	July		Aug		Sept		Oct		Nov		Dec		Jan		Feb		Mar		Apr		May		Jun	
	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R	Total	R
2022/2023	540	479	520	453	490	430	499	435	482	417	459	391	431	342	448	371	448	364						
2021/2022	310	274	310	277	276	246	258	235	311	280	367	313	354	304	403	350	423	372	439	390	466	406	542	480
2020/2021	196	157	187	157	221	182	221	180	263	219	257	216	262	217	300	229	297	259	293	258	271	238	312	271

R = Replacements

### 3) Potential Hearings

Nil

**4) Consents Processed (running totals)**

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June
<b>2022-2023</b>	7	53	82	86	139	171	211	228	249			
<b>2021-2022</b>	17	37	87	114	123	136	152	162	184	202	218	225
<b>2020-2021</b>	20	38	53	75	94	116	131	154	178	209	247	269

**5) Breakdown of consents processed**

	New	Replace	Change	Review	Totals
<b>2022-2023 - to March</b>	<b>48</b>	<b>189</b>	<b>7</b>	<b>5</b>	<b>249</b>
2021-2022 Total	54	149	16	6	<b>225</b>
2021-2021 Total	71	148	39	11	<b>269</b>

**6) Types of consents issued - year to date comparison**

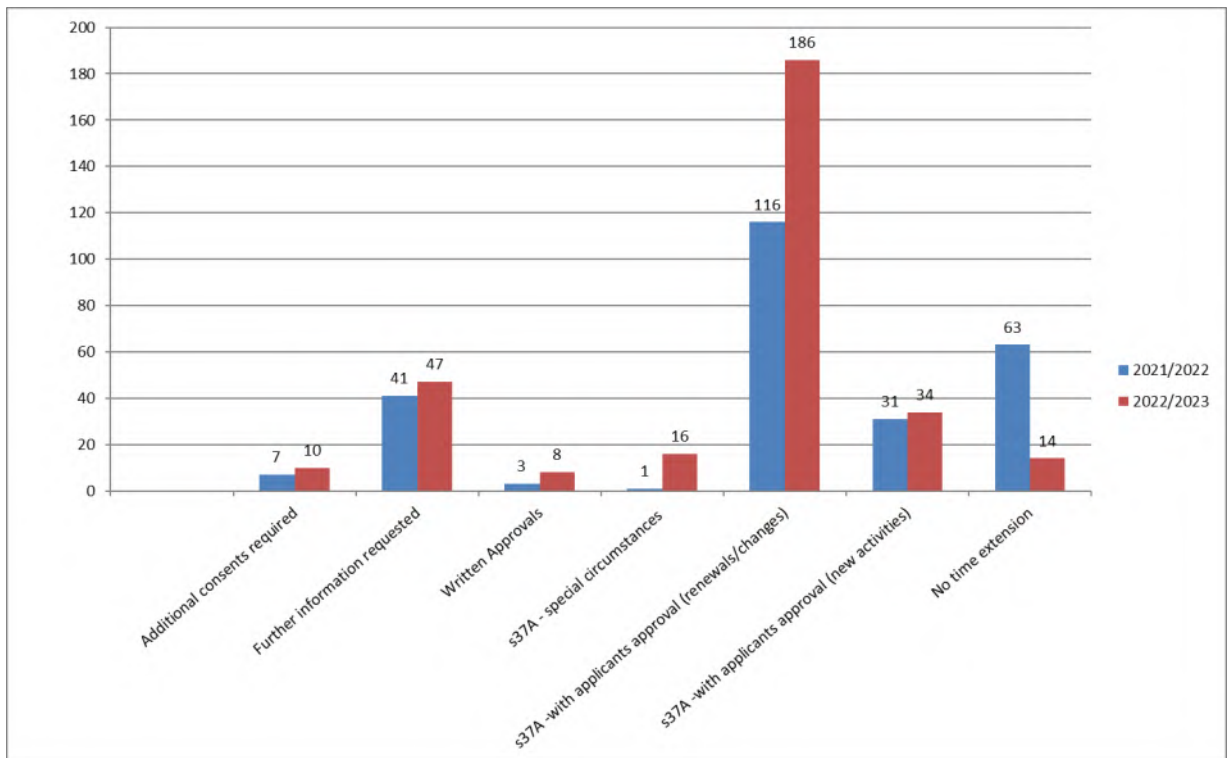
	Agricultural	Central/Local Government	Energy	Forestry	Other	Total publicly notified		Agricultural	Central/Local Government	Energy	Forestry	Other	Total Limited Notified		Agricultural	Central/Local Government	Energy	Forestry	Other	Total Non-notified		Grand Total
	Publicly Notified					%		Limited					%		Non Notified					%		
July 2020 to June 2021	0	0	0	0	2	0.7%	2	0	1	0	0	0	0.4%	1	146	20	44	6	50	98.9%	266	269
July 2021 to June 2022	0	0	8	0	0	3.6%	8	1	0	0	0	0	0.4%	1	132	36	18	3	27	96.0%	216	225
July 2022 to March 2023	0	0	0	0	0	0.0%	0	1	1	0	0	0	0.0%	2	181	15	15	0	36	99.2%	247	249

**7) Involvement with third parties for applications processed year to date**

	Consultation/ Involved (number of parties)	Number of Affected Party Approvals (written)	Totals
<b>Councils</b>	<b>1</b>	<b>13</b>	<b>14</b>
<b>DOC</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Environmental/Recreational Groups</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Fish &amp; Game</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Individuals/Neighbours/Landowners</b>	<b>3</b>	<b>19</b>	<b>22</b>
<b>Network Utilities</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Non Govt Organisations</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Other Govt Departments</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Iwi/hapu</b>	<b>406</b>	<b>0</b>	<b>406</b>
<b>Totals - March 2023</b>	<b>410</b>	<b>32</b>	<b>442</b>



## 8) Application processing time extensions used 2021/2022 versus 2022/2023



## 9) Consent type process

	Last 10 year average 2013 - 2022	July 2021 to June 2022	July 2022 to March 2023
Total consents granted	347	225	249
Publically Notified	9	8	0
Limited-notified	10	1	2
Non-notified	330	216	247
Applications submitted on (in opposition and to be heard)	13	9	2
Application Pre-hearing resolution (%)	7 81%	8 89%	2 100%
Hearings (no. of applications)	1 (6)	1 (1)	0 (0)
Appeals (no. of applications)	1 (6)	0 (0)	0 (0)
Total current consents	4714	4372	4422

**10) Applications returned incomplete under Section 88**

For the 2022-2023 financial year, 21 applications have been returned incomplete under S88 of the RMA for insufficient information. Thirteen of those applications have since been resubmitted by the applicant.

**11) Deemed Permitted Activities issued**

Date Issued	DPA No	Holder	Activity	Plan	Rule
2-Feb-23	7232-2.0	Orchard Family Trust Partnership	Pipe Waterway	RFWP	52



**Date** 26 April 2023

**Subject:** **Consent Monitoring Annual Reports**

**Approved by:** A J Matthews, Director - Environment Quality  
S J Ruru, Chief Executive

**Document:** 3157857

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### **Purpose**

1. The purpose of this memorandum is to advise the Committee of 18 tailored compliance monitoring reports for the 2021-2022 reporting year.

### **Executive summary**

2. Taranaki Regional Council (the Council) considers the regular reporting of comprehensive and well-considered compliance monitoring is vital to undergird:
  - Community standing and reputation enhancement for companies that consistently attain good or high levels of environmental performance. Informed feedback is appropriate and valuable, and assists a proactive alignment of industry's interests with community and Resource Management Act 1991 expectations.
  - A respectful and responsible regard for the Taranaki region's environment and our management of its natural resources. Reporting allows evaluation and demonstration of the overall rate of compliance by sector and by consent holders as a whole, and of trends in the improvement of our environment.
  - The Council's accountability and transparency. Reporting gives validity to investment in monitoring and to assessments of effective intervention.
3. These compliance monitoring reports have been submitted to each consent holder for comment and confirmation of accuracy prior to publication. All reports provide environmental performance and administrative compliance ratings for each consent holder in relation to their activities over the period reported. Recommendations pertaining to each site or programme are set out in the relevant report. These recommendations may include continuation of existing monitoring programmes in the case of acceptable environmental performance, or alternatively amendments as appropriate.
4. There are 18 tailored compliance monitoring reports. Within the reports, overall environmental ratings assigned included 31 high and 10 good, and 11 which require improvement. No ratings are assigned for the Eltham Central Landfill for the reporting

year, as these consents are yet to be exercised and monitoring activities were associated with baseline monitoring only.

*Table 1 List of annual reports with overall environmental performance rating*

Report Name	Environmental Performance Rating	Document Number
22-13 Lower Waiwhakaiho Catchment Monitoring Programme Annual Report 2021-2022	6 x high, 4 x good, 3 x impvmt req	3148559
22-15 Waitaha Catchment Monitoring Programme Annual Report 2021-2022	9 x high, 1 x good, 3 x impvmt req	3140803
22-45 ANZCO Eltham Ltd Monitoring Programme Annual Report 2021-2022	1 x good	3151512
22-47 Silver Fern Farms Waitotara Monitoring Programme Annual Report 2021-2022	1 x good	3149650
22-48 Eltham Central Landfill Baseline Monitoring Annual Report 2021-2022	N/A	3130219
22-51 Stanley Bros Trust Piggery Monitoring Programme Annual Report 2021-2022	1 x impvmt req	3117349
22-53 RKM Farms Ltd Piggery Monitoring Programme Annual Report 2021-2022	1 x high	3126013
22-54 Regional Quarry Compliance Monitoring Combined Biennial Report Southern Quarries 2020-2022	11 x high, 1 x impvmt req	3124457
22-56 Westown Haulage Ltd Monitoring Programme Annual Report 2021-2022	1 high	3094934
22-58 STDC Patea Beach Green Waste Discharge Monitoring Programme Annual Report 2021-2022	1 x high	3093850
22-60 Wai-iti Beach Retreat Monitoring Programme Annual Report 2021-2022	1 x high	3090287
22-61 NPDC Urenui and Onaero Beach Camps Monitoring Programme Annual Report 2021-2022	1 x impvmt req	3129899
22-62 Todd Energy Aquatic Centre Monitoring Programme Annual Report 2021-2022	1 x impvmt req	3099288
22-65 Hickman JD 1997 Family Trust Monitoring Programme Annual Report 2021-2022	1 x good	3094527
22-67 Corteva Agriscience New Zealand Ltd Monitoring Programme Annual Report 2021-2022	1 x high	3148889
22-73 Ample Group Ltd Monitoring Programme Annual Report 2021-2022	1 x good	3105270
22-84 NPDC Coastal Structures Monitoring Programme Biennial Report 2020-2022	1 x good	3136524
22-102 Civil Quarries Ltd-Everett Road Quarry Monitoring Programme Annual Report 2021-2022	1 x impvmt req	3137663

5. For reference, in the 2021-2022 year, consent holders were found to achieve a high level of environmental performance and compliance for 876 (88%) of a total of 998 consents monitored through the Taranaki tailored monitoring programmes, while for another 97 (10%) of the consents a good level of environmental performance and compliance was achieved. A further 24 (2%) of consents monitored required improvement in their performance, while the remaining one (<1%) achieved a rating of poor (Table 2).

*Table 2 Historical annual environmental and compliance performance ratings from July 2012 to June 2022. Please note that the breakdown of consents that achieved 'Improvement required' or 'Poor' levels of environmental performance and compliance were not reported separately prior to 2017-2018.*

Year	High	Good	Improvement Required	Poor
2012-2013	59%	35%	6%	
2013-2014	60%	29%	11%	
2014-2015	75%	22%	3%	
2015-2016	71%	24%	5%	

Year	High	Good	Improvement Required	Poor
2016-2017	74%	21%	5%	
2017-2018	76%	20%	3%	1%
2018-2019	83%	13%	3%	1%
2019-2020	81%	17%	2%	0%
2020-2021	86%	11%	2.5%	0.5%
2021-2022	88%	10%	2%	<1%

6. Ministry for the Environment (MfE) Best Practice Guidelines for Compliance, Monitoring and Enforcement under the Resource Management Act 1991 recommend that councils provide regular reports to the public on compliance monitoring and enforcement activities. Council public reporting of these activities provides public transparency around how rules/policies are being enforced and how council responds to non-compliance. The Council has been providing annual compliance reports to consent holders and the public for over three decades. Copies of individual compliance reports are available on request, or via the Taranaki Regional Council website.

## Recommendations

That the Taranaki Regional Council:

- receives the 18 compliance monitoring reports listed in Table 1; and
- notes any specific recommendations therein.

## Discussion

7. Findings and recommendations of each of the compliance monitoring reports are summarised below.

### 22-13 Lower Waiwhakaiho Catchment Monitoring Programme Annual Report 2021-2022

- The Lower Waiwhakaiho River catchment monitoring programme addresses discharges by several consent holders in the Fitzroy area of New Plymouth. The report covers the period July 2021 to June 2022, and is the 29th report for this combined monitoring programme.
- During the monitoring period, the companies demonstrated an overall good level of environmental performance and a high level of administrative performance.**
- The Waiwhakaiho River catchment is significant for the Taranaki region. It is used for domestic, agricultural and industrial water supply, hydroelectric power generation, recreational purposes, and waste assimilation. It is also important to the local hapū. Because of the pressure on the river, the Council adopted a water management plan for the lower catchment in September 1991.
- During the 2021-2022 monitoring period a total of 19 consents were held by the 13 industries monitored under this programme that discharge wastewater, stormwater and/or leachate from the industrial area at Fitzroy, New Plymouth to the lower

Waiwhakaiho River and Mangaone Stream, or to land in the lower Waiwhakaiho and Mangaone Stream catchments. The activities and impacts of the consent holders upon water quality are discussed, as is the extent of their compliance with their permits, and their overall environmental performance. There is a separate report covering emissions to air within the catchment.

12. The monitoring programme included 43 site inspections, 104 samples of discharges, groundwater and receiving waters, and two biomonitoring surveys of the Waiwhakaiho River and Mangaone Stream.
13. Biomonitoring surveys undertaken during the monitoring period indicated that discharges from the industrial area can contribute to deterioration in macroinvertebrate community health in a downstream direction in the lower Waiwhakaiho River, including below the Mangaone Stream confluence. The Mangaone Stream also had a significant decline in macroinvertebrate indices in the middle reaches, which may be due in part to chronic pollution from historic sites. However, results suggest that a more recent and local discharge may be contributing to the deterioration noted.
14. There continued to be evidence of some nutrient enrichment occurring in the lower Mangaone Stream. This was most likely to have been caused by inputs from various sites in the middle reaches. Also noted is the persistence of nutrient contamination in the groundwater surrounding the old Ravensdown site. In addition, there was the introduction of discharges from the new Ravensdown site which have in the past been found to be non-compliant in regard to ammoniacal nitrogen.
15. Low levels of light organic solvent preservative (LOSP) chemicals Propiconazole and Tebuconazole were detected in the Mangaone Stream downstream of Taranaki Sawmills Ltd during a wet weather survey. However, levels of these chemicals were similar to concentrations detected historically.
16. Monitoring of groundwater and leachate in relation to the old landfill area off Bewley Road showed pH and sulphate levels were outside consent limits at two monitoring bores. Other parameters tested were within consent limits at the time of sampling.
17. There were three unauthorised incidents recorded that were associated with the consents covered by this report which resulted in further enforcement action, including two infringement notices and one abatement notice being issued.
18. During the period under review, AML Ltd demonstrated a level of environmental and administrative performance and compliance that **required improvement with** their resource consent.
19. During the period under review, Devon 662 Limited Partnership demonstrated a **good** level of environmental performance and a **high** level of administrative performance and compliance. Groundwater monitoring continues to show the likelihood of fugitive historical fertiliser discharges from the former storage depot. More recent sampling appears to indicate that these trends are decreasing.
20. Dialog Fitzroy, Envirowaste Services Ltd, Freight and Bulk Transport Holdings Ltd, KiwiRail Holdings Ltd/New Zealand Railways Corporation Ltd, Technix Group Ltd and Waste Management NZ Ltd all demonstrated a **high** level of environmental and administrative performance and compliance with their resource consents.
21. During the period under review, Downer EDI Works Ltd was issued with an **improvement required** rating for their environmental performance and administrative performance and compliance with their resource consents, in relation to its Rifle Range Road site.

22. During the period under review, Firth Industries Ltd demonstrated a **good** level of environmental and a **high** level of administrative performance and compliance with their resource consents in relation to its site on Clemow Road. There have been ongoing issues with sediment loading in stormwater discharges, which the Company have since addressed.
23. During the period under review, New Plymouth District Council demonstrated a **good** level of environmental performance and **high** level of administrative performance and compliance with its resource consents. Further work may be required to understand chemical fluctuations, and subsequent consent limit exceedances, in leachate discharge to groundwater and surface water in the area.
24. During the period under review, Ravensdown Fertiliser was issued with an **improvement required** rating for their level of environmental performance and a **high** level administrative performance and compliance with their resource consent.
25. During the period under review, Taranaki Sawmills Ltd demonstrated a **good** level of environmental and a **high** administrative performance and compliance with their resource consent. Recent works to remediate zinc on the site have successfully reduced levels in stormwater discharges.
26. This report includes recommendations for the 2022-2023 year.

### **22-15 Waitaha Catchment Monitoring Programme Annual Report 2021-2022**

27. This 2021-2022 annual compliance monitoring report is the 28<sup>th</sup> report by the Taranaki Regional Council (the Council) to be prepared for the monitoring programme in the Waitaha Stream catchment. Twelve industrial premises were monitored under this programme during the year under review. The monitoring reflects an on-going process of identifying and improving discharges into the catchment in a similar manner to the management of those in the neighbouring Mangati Stream catchment.
28. **During the monitoring period, most consent holders demonstrated an overall good level of environmental performance and a high level of administrative performance.**
29. A total of 17 consents, held by the 13 industries, were included in the monitoring programme during the 2021-2022 monitoring period. Of these, there are ten consents for discharges to water, one to discharge to land, and six consents for discharges to air. These consents include a total of 204 special conditions.
30. The Council's monitoring included 76 inspections, seven discharge samples and seven receiving water samples collected for physicochemical analysis, along with a review of consent holder air quality monitoring data, odour surveys, ambient air quality analyses, ambient PM10 monitoring, and deposition gauging.
31. During the year under review, inspections found that the sites were generally well managed, with mostly only transient non-compliances found at some sites, the majority of which were addressed in a timely manner. The persistent issue of non-compliant levels of suspended solids was again noted in the catchment with four instances of consent breaches, by three different consent holders, recorded during the monitoring period. Enforcement action was taken following all of these breaches. Consent holders continuing to investigate the source of suspended sediment in the catchment so they can implement appropriate mitigation measures. There was also one breach of an air quality consent condition which was also followed up with enforcement action.

32. In addition to the elevated levels of suspended sediment noted in some stormwater discharges, chemical monitoring of the stream found that although there were measurable changes in some parameters, most of these would have resulted in only minor transient effects at most. In terms of guidelines, there were a few low level exceedances of guidelines for pH, ammoniacal nitrogen, or biochemical oxygen demand. Zinc concentrations in four of the seven wet weather samples taken from the Waitaha Stream were found to be below the USEPA acute guideline for zinc, while five of the seven dissolved copper results were below the USEPA acute guidelines.
33. Overall, most consented discharges in the Waitaha catchment achieved a good level of environmental compliance. Where consented discharges required improvement, the Council has been working with consent holders to apply best practice. The Council, in co-operation with New Plymouth District Council (NPDC) as the consented reticulation owners, is also educating and engaging with non-consent holders in the catchment who may be unaware of their environmental and regulatory obligations.
34. During the year, AICA (NZ) Ltd, C&O Concrete Products Ltd, Energyworks Ltd, Meredith Metals Ltd, NPDC, Pounamu Oil Services Ltd, Taranaki Sawmill, SRG Global Asset Services (Taranaki) Ltd and Woodward's 2008 Ltd all demonstrated a **high** level of environmental and administrative performance and compliance with their resource consents.
35. During the year, Greymouth Facilities Ltd demonstrated a level of environmental performance that **required improvement** and a **high** level of administrative performance and compliance. GFL need to investigate and mitigate the source of suspended solids in the stormwater discharge on site.
36. Intergrupp Ltd and Symons Property Development also demonstrated a level of environmental performance that **required improvement** and a **high** level of administrative performance and compliance with their resource consents.
37. During the year, Zeland Ltd demonstrated an overall **good** level of environmental performance and a **high** level of administrative performance and compliance.
38. In terms of overall environmental and compliance performance by the consent holders over the last several years, this report shows that the consent holders' performance remains at a good level for the year under review.
39. This report includes recommendations for the 2022-2023 year, including a recommendation relating to an optional review of consents 0609-3, 4056-3, 9606-2, and 9868-1 in June 2023.

#### **22-45 ANZCO Eltham Ltd Monitoring Programme Annual Report 2021-2022**

40. ANZCO Foods Eltham Ltd (the Company) operates a meat processing plant located at Eltham, in the Waingongoro catchment. Until May 2014, the site was known as Riverlands Eltham. The plant has an associated wastewater treatment system from which treated effluent is disposed of either to land or to surface water.
41. This report covers the Company's processing season from October 2021 to September 2022 and describes the monitoring programme implemented by the Council to assess the Company's environmental performance during the period under review.
42. **During the monitoring period, the Company demonstrated a good level of environmental performance, while improvement was required in the level of administrative performance.**



43. The Company held eight resource consents during the review period, which included a total of 91 conditions. The Company held one consent to allow it to take and use water, two consents to discharge effluent and stormwater into the Waingongoro River, two consents to discharge effluent and solids to land, two consents for structures in watercourses, and one consent to discharge emissions into the air at the plant site.
44. Monitoring is carried out by both the Company and the Council. The Company monitors water abstraction rate, effluent flow rate and composition, receiving water quality, odour at the plant boundaries, effluent loadings and soil and herbage for irrigation areas. The Council undertakes inspections of the plant site and irrigation areas. Monitoring includes effluent quality checks and inter-laboratory comparisons, water quality, air quality and biological monitoring.
45. The Council's monitoring programmes for the period under review included three inspections, 57 groundwater and 48 surface water samples collected for physicochemical analysis, two biomonitoring surveys of receiving waters and review of Company data.
46. The abstraction of water from the Waingongoro River was not found to have any adverse effect on the river and the physicochemical monitoring of the river showed compliance with consent conditions. Biomonitoring surveys did not identify any detrimental impact on the river caused by discharges from the meat processing plant to water.
47. During the 2020-2021 monitoring period, 58% (296,909 m<sup>3</sup>) of the total plant effluent (514,132 m<sup>3</sup>) was sprayed onto grazed pasture. The irrigation occurred over 32 weeks between October 2021 and 7 June 2021. The data that would enable compliance with the limit on nitrogen loading to be assessed was not provided due to staffing issues. Compliance with the daily discharge limits could also not be assessed.
48. The groundwater monitoring programme indicates that irrigation of effluent by the Company has had a measureable effect on localised groundwater quality over time. Some improvement can be seen in regard to nitrate concentrations in groundwater over the last few years in response to recent mitigation measures undertaken by the Company. It is noted that there is an increase in the nitrate+nitrite concentration in one of the bores at the Paulwell farm site. This will be investigated further during the 2022-2023 year.
49. With regard to emissions to air over the 2021-2022 period, no incidents were recorded.
50. During the year, the Company demonstrated a good level of environmental performance, while an improvement was required in their administrative performance. There are some on-going issues with the supply of reports and/or data in a timely manner and some improvement required under consent 5569-1 in environmental performance, relating to nitrate concentrations in groundwater.
51. In terms of overall environmental and compliance performance by the Company over the last few years, this report shows that the Company's performance has remained at a good level, with some improvement required in their administrative performance.
52. It is noted that the Company's own monitoring year runs from 1st October to 30th September and they struggle to meet the reporting timeframes required by their consent conditions. As a first step in aiming to bring about an improvement in administrative performance, it is proposed that the consent monitoring and reporting requirements in consents 5437-3.1, 5736-2 and 7487-1 be reviewed with the Company. This review will ensure that the requirements are clear, consistent, achievable, measurable and enforceable.

53. This report includes recommendations to be implemented during the 2022-2023 monitoring period, including recommendations relating to the review of consents 5437-3.1, 5736-2, and 7487-1.

## **22-47 Silver Fern Farms Waitotara Monitoring Programme Annual Report 2021-2022**

54. Silver Fern Farms Ltd (Silver Fern Farms) operates a meat processing plant located on Wai-inu Beach Road, Waitotara in the Waitotara catchment. This report, for the period 1 October 2021 to 30 September 2022 coincides with the processing season. It describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess Silver Fern Farms' environmental and consent compliance performance during the period under review. The report also details the results of the monitoring undertaken and assesses the environmental effects of Silver Fern Farms' activities.
55. **During the monitoring period, Silver Fern Farms demonstrated a good level of environmental performance, while an improvement is required in the level of administrative performance.**
56. Silver Fern Farms holds five resource consents, which include a total of 51 conditions setting out the requirements that they must satisfy. Silver Fern Farms holds resource consents to allow it to take and use groundwater and spring water, to discharge wastes by spray irrigation to land, to discharge stormwater and cooling water to an unnamed tributary of the Waitotara River, and to discharge emissions into the air. A review of the consent for the discharge of wastewater to land (consent 2260-3) was initiated in June 2022 as per the recommendations of the 2020-2021 Annual Report.
57. The Council's monitoring programme for the year under review included four inspections, and the collection of four wastewater and 28 groundwater samples for physicochemical analysis. Silver Fern Farms supplied records of their own monitoring, as well as records of the volume of water abstracted and the volume of wastewater discharged.
58. No breaches of the daily abstraction limits were recorded during the monitoring period. There were also no exceedances in the groundwater abstraction rate that were above the permitted measurement error of the metering devices. However compliance of the abstraction rate from the spring could not be assessed due to a lack of data. The continued required accuracy of the water level data could also not be assessed. No enforcement action has been taken as both Silver Fern Farms and the Council have been affected by problems with the monitoring, recording and/or telemetry equipment in recent years. The Council is working with Silver Fern Farms to bring about the necessary improvements. The Council is also continuing to work with Silver Fern Farms to ensure that there are adequate validation and/or verification procedures in place to confirm the accuracy of the groundwater level measuring devices complies with the requirements of the groundwater abstraction consent.
59. There were no issues found in relation to the discharges to air from either the plant site or the irrigation activities.
60. There was a spill on site that resulted in an unauthorised discharge of a cleaning product from the site that reached surface water. Although there was no evidence of any significant adverse effects as a result of the spill, the contingency plan in place for the site was not followed. An infringement notice was issued.

61. During the year, Silver Fern Farms demonstrated an overall good level of environmental performance and an improvement was required in the administrative performance with the resource consents. The Council is continuing to work with Silver Fern Farms to ensure that appropriate and sustainable abstraction records are maintained and provided to Council, and that the management plans include the required information such that they can be certified by Council. A review of consent 2260-3.1 was initiated during the period under review. This is to ensure that the conditions are adequate to deal with any adverse effects (including potential effects) on the environment, arising from the exercise of this consent. This review was initiated due to the elevated nitrate concentrations found in the vicinity of the Longview Farm irrigation area.
62. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a good level.
63. This report includes recommendations for the 2022-2023 year.

#### **22-48 Eltham Central Landfill Baseline Monitoring Annual Report 2021-2022**

64. In 1996 the South Taranaki District Council (STDC) instigated plans to establish a large landfill in the Eltham area. The (proposed) Central landfill site is situated in the Waingongoro catchment on Rotokare Road, approximately two kilometres south of Eltham. The purpose of this site was originally to accept waste from the South Taranaki and Stratford Districts however, plans for the Central Landfill site have since been put on hold and Taranaki's waste is currently being disposed of outside of the region following the closure of Colson Road landfill for general waste in August 2019.
65. The management of the delivery and operation of the facility, and the associated consents were transferred to New Plymouth District Council (NPDC) during the year under review. This report for the period July 2021 to June 2022 describes the baseline monitoring programme implemented by the Council, in anticipation of the site's eventual use as a landfill.
66. **During the monitoring period the environmental performance of NPDC at the Central landfill was not assessed as the consents are yet to be exercised.**
67. NPDC holds a total of five consents which contain a total of 87 special conditions. These consents cover all aspects of the construction and operation of the landfill. At present none of the consents held by NPDC in relation to landfill construction and operation have been exercised.
68. Consent conditions specify that baseline monitoring of the ground and surface receiving waters is to be undertaken to obtain data for comparison to that to be gathered from compliance monitoring surveys when the landfill will have commenced operations. In the 2016-2017 year the Council was informed that site establishment was commencing. This report outlines the progress that had been made towards site establishment prior to the project being put on hold, the consents held by NPDC for this site, reports on the baseline monitoring activities carried out in the 2021-2022 period, and discusses these results along with the previously obtained monitoring results.
69. As some baseline monitoring had been undertaken for a number of years, and there had been uncertainty around if and when the consents might be exercised, monitoring had been scaled back to consist of only the collection and analysis of six surface water samples per year between 2014-2017.

70. For the 2017-2019 years, the baseline monitoring was increased significantly with the expectation that the site would become operational late in the 2018-2019 year. Although the project was put on hold in the middle of the 2018-2019 year, due the significant increase in the number of monitoring sites, and lack of information on the natural variability at them, this increased level of monitoring was continued for surface water monitoring during the 2019-2020 year and the first half of the 2020-2021 year, as the project may yet recommence. With the fate of the landfill still undecided at the beginning of the 2021-2022 monitoring period, the Council's monitoring programme scheduled for the year under review included water samples to be collected for physicochemical analysis and two biomonitoring surveys. One of the two programmed biomonitoring surveys of the receiving waters was undertaken prior to the final decision in December 2021 to halt all construction at the site for the foreseeable future, no other monitoring was undertaken after this time.
71. This report includes recommendations for the 2022-2023 year, including a recommendation relating to an optional review of consents 5347, 5348, 5349, 5350, and 5351 in June 2023.

## **22-51 Stanley Bros Trust Piggery Monitoring Programme Annual Report 2021-2022**

72. The Stanley Bros Trust (the Company) operates a piggery located on the corner of 4833 South Road and 24 Arawhata Road, Opunake in the Arawhata catchment. The piggery is a breeder, grower, and finishing operation with the capacity of up to 5,381 pigs and piglets at any one time.
73. **During the monitoring period, Stanley Bros Trust demonstrated a level of environmental performance that required improvement and a high level of administrative performance.**
74. The Company holds two resource consents, which include a total of 21 conditions setting out the requirements that the Company must satisfy. The Company holds one consent to discharge piggery effluent to land via spray irrigation, and one consent to discharge emissions into the air.
75. The Council's monitoring programme for the year under review included one inspection, one effluent monitoring survey, and two rounds of surface water monitoring with samples from four sites collected for physicochemical analysis. Odour surveys were also undertaken during inspections. Data was supplied by the Company and reviewed by the Council.
76. The Company was unable to discharge effluent to the consented 100 ha of cut and carry pasture this monitoring period, with just 84.04 ha utilised for cut and carry operations. A variation of consent may be sought by the Company in the upcoming monitoring period.
77. The Company is currently carrying less pigs than their consented allowance and have no plans to increase stock numbers, citing instability within the pork industry.
78. Piezometer installation has been delayed. The Company has provided the Council with a proposal to negate their requirement for groundwater monitoring. This is an ongoing investigation by the Council.
79. The monitoring showed that a minor increase of nitrate-nitrogen was recorded down the length of the Arawhata Stream.

80. The operations have come under new management from within the Company structure. This represents a step-change with the Company operations, with greater control now being exercised in the field of irrigation management. This is in part due to the significant investment in new technologies for use across the Company site. The utilisation of these technological advances has the potential to achieve greater transparency in regard to effluent management and improve productivity for both current and future cut and carry operations on site.
81. In term of environmental performance and administrative performance by the consent holder, over the last several years there have been many non-compliant events, with abatements and infringements being issued on multiple occasions. The 2021-2022 monitoring period was an improvement on previous years with no abatement or infringements being issued and only two non-compliant consent conditions.
82. This report includes recommendations for the 2022-2023 year.

### **22-53 RKM Farms Ltd Piggery Monitoring Programme Annual Report 2021-2022**

83. RKM Farms Ltd (the Company) operates a piggery located on 599A South Road at Hawera, in the Tangahoe catchment. The piggery is a breeder grower and finishing operation with up to 5,000 pigs and piglets at any one time, employing between four and five full time staff.
84. **During the monitoring period, RKM Farms Ltd demonstrated a high level of environmental and administrative performance.**
85. The Company holds two resource consents, which include a total of 13 conditions setting out the requirements that the Company must satisfy. Resource consent 5108-2 allows the discharge of treated effluent into the Tawhiti Stream, and consent 5266-2 relates to the discharge of emissions into the air at this site.
86. An associated consent held by Lloyd Gernhoefer Contractor Ltd (consent 5352-3) permits the discharge of the contents of effluent treatment ponds, dairy effluent storage ponds, and solids from herd homes to land throughout the Taranaki region.
87. The Council's monitoring programme for the year under review included four inspections and the collection of two wastewater and receiving water samples collected for physicochemical analysis
88. The monitoring showed that the wastewater and receiving water samples were well within the consented limits as shown in previous years, the monitoring indicated there was no unauthorised incidents during the period under review.
89. No non-compliant odour incidents were recorded during the period under review.
90. This report includes recommendations for the 2022-2023 year, including recommendations relating to an optional review of consents 5108-2 and 5266-2.

### **22-54 Regional Quarry Compliance Monitoring Combined Biennial Report Southern Quarries 2020-2022**

91. This report for the period July 2020 to June 2022 describes the monitoring programme implemented by the Taranaki Regional Council (the Council) to assess the environmental and consent compliance performance of various quarrying operations across Taranaki during the period under review. The report also details the results of the monitoring undertaken and assesses the environmental effects of these activities.

92. At the end of the period being reported, there were 24 active quarries being monitored by the Council across the region. These quarries held a combined total of 51 resource consents, authorising various combinations of water discharges and abstractions, discharges of cleanfill and stream modifications.
93. For the purposes of compliance monitoring and reporting, the Council splits quarrying operations into two distinct geographic sub-groups (Northern and Southern). Each monitoring programme is reported on biennially.
94. The following report details monitoring work carried out in relation to the Southern Quarries, which account for 11 of the region's 24 active quarries, as well as one quarry that was remediated during the monitoring period. This will be the fourth report to incorporate the monitoring results of this group of quarries.
95. The monitoring programmes for another 12 quarries will be included in a separate biennial report (Northern Quarries compliance monitoring report), which will also cover the period July 20 to June 2020. Civil Quarries Ltd's Everett Road quarry is reported on separately.
96. For each quarry, this report describes the monitoring programmes implemented by the Council to assess environmental performance during the period under review, and the results and environmental effects of the quarry's activities.
97. During the monitoring period, Bunn Earthmoving Ltd – Surrey Road Quarry, C D Boyd – Surrey Road, DM & DL Bourke – Onewhaia Road, Hey Trust – Monmouth Road quarry, Horizon Trust Management Ltd – Rangitatau West road, Horizon Trust Management Ltd – Waiteika Road, Ravensdown Windy Point Quarry – Ragitatau Road, R A Wallis Ltd – Lower Glenn Road Quarry, Taunt Contracting Ltd – Bird Road, Vickers Quarry Ltd – York Road all demonstrated a high level of environmental and administrative performance.
98. Horizon Trust Management Ltd – Whenuku Road demonstrated a good level of environmental and administrative performance.
99. Burgess and Crowley Ltd – East Road demonstrated an overall improvement required in both their environmental and administrative performance. Burgess and Crowley was issued an infringement notice for suspended solids above the allowable resource consent limit at the discharge point to the Toko wetland. The company was also issued an infringement notice for failure to provide water level data in the specified timeframe.
100. This report includes recommendations for the 2022-2024 monitoring period for each consent holder.

## **22-56 Westown Haulage Ltd Monitoring Programme Annual Report 2021-2022**

101. Westown Haulage Ltd (the Company) operated a cleanfill and wood waste disposal site located on Cowling Road at Hurdon, in the Huatoki catchment. Although the site is no longer operational, the historic activity related to the filling of a gully with cleanfill and sawdust from the Taranaki Pine (previously Taranaki Sawmills) site in Bell Block.
102. The Company holds one resource consent to discharge waste to land where contaminants may enter the Mangaotuku Stream. The consent includes a total of 13 conditions setting out the requirements that the Company must satisfy.
103. **During the monitoring period, Westown Haulage Ltd demonstrated a high level of environmental and administrative performance.**

104. The Council's monitoring programme for the year under review included one inspection to review the capping progress of the site, after discharge operations were discontinued in February 2021.
105. Previous monitoring showed that the cleanfill was having little, if any, effect on the Mangaotuku Stream. The most recent inspection showed that the capping appeared stable. There were no unauthorised incidents recording non-compliance in respect of this Company during the period under review.
106. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a high level.
107. This report includes recommendations for the 2022-2023 year.

#### **22-58 STDC Patea Beach Green Waste Discharge Monitoring Programme Annual Report 2021-2022**

108. South Taranaki District Council (STDC) operates a green waste disposal area located on Beach Road at Patea Beach. The site was established as a public facility that could accept green waste for sand dune stabilisation purposes. The site is consented to accept green waste from the Patea community and from STDC's kerbside and transfer station collection.
109. **During the monitoring period, STDC Patea Beach green waste discharge demonstrated a high level of environmental performance and good level of administrative performance.**
110. STDC holds one resource consent, which includes a total of 12 conditions setting out the requirements that they must satisfy. The consent is for the purpose of discharging green waste onto land for dune stabilisation purposes. STDC are currently in the process of applying for a consent renewal for this site.
111. The Council's monitoring programme for the year under review included three out of four compliance monitoring inspections of the site focussing on types of materials discharged, stormwater and leachate control, and emissions to air.
112. In the 2016-2017 monitoring period, issues were found with unacceptable wastes being exposed by coastal erosion. This resulted in the site being closed to the public in 2017. Any further dune stabilisation will be done using green waste disposed of at the Patea transfer station. The monitoring during the period under review showed that the closing of the site to the general public resulted in no unacceptable material being dumped on site. There were no issues noted relating to stormwater or odour.
113. This report includes recommendations for the 2022-2023 year.

#### **22-60 Wai-iti Beach Retreat Monitoring Programme Annual Report 2021-2022**

114. Wai-iti Motor Camp Ltd (the Company) operates the Wai-iti Beach Retreat (the Retreat), located on Beach Road in North Taranaki. The Company holds two resource consents, which allows it to discharge treated septic tank effluent to groundwater, and for a boulder rip rap toe protection in the coastal marine area. These consents include a total of 24 conditions setting out the requirements that the Company must satisfy.
115. **During the monitoring period, Wai-iti Beach Retreat demonstrated a high level of environmental and administrative performance.**

116. The Council's monitoring programme for the year under review included three routine inspections of the wastewater system, one inspection of the rock wall, and routine bacteriological water sampling of the Wai-iti Stream and Wai-iti Beach on one occasion.
117. The monitoring showed that the Retreat was well maintained during the period under review. The wastewater treatment system at the Retreat did not adversely affect the water quality of the local freshwater and coastal environments. The results of this sampling suggested that the Retreat was not influencing the water quality of the Wai-iti Stream. There were no unauthorised incident/s recording non-compliance in respect of this consent holder during the period under review.
118. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a high level in the year under review.
119. This report includes recommendations for the 2022-2023 year.

## **22-61 NPDC Urenui and Onaero Beach Camps Monitoring Programme Annual Report 2021-2022**

120. New Plymouth District Council (NPDC) operates the sewage disposal systems located at Urenui Beach Camp and Onaero Bay Holiday Park. NPDC holds resource consents to allow it to discharge septic tank treated sewage to groundwater via infiltration trenches at each of the beach camps.
121. **During the monitoring period, NPDC demonstrated an overall level of environmental performance that requires improvement and a high level of administrative performance.**
122. NPDC holds one consent at Urenui, and one consent at Onaero, that each include five conditions setting out the requirements that NPDC must satisfy.
123. The Council's monitoring programme for the year under review included three inspections at each beach camp and one low tide bacteriological sampling survey of four sites at Urenui Beach Camp, and five sites at Onaero Bay Holiday Park. As in previous years, the bacteriological monitoring did not detect any adverse environmental effects caused by the beach camps' wastewater systems during the 2021-2022 monitoring period.
124. NPDC is currently under Abatement Notices EAC-23206 and EAC-23207 for exceeding the consented limits of wastewater effluent volumes discharged to the soakage trenches at both Urenui Beach Camp and Onaero Holiday Park. No adverse effects have been identified in relation to these discharges and NPDC are being pro-active in their efforts to resolve the issues.
125. There were no unauthorised incident/s recording non-compliance in respect of this consent holder during the period under review.
126. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a level that requires improvement in the year under review.
127. This report includes recommendations for the 2022-2023 year.



## **22-62 Todd Energy Aquatic Centre Monitoring Programme Annual Report 2021-2022**

128. The New Plymouth District Council (NPDC) operates the Todd Energy Aquatic Centre (the Aquatic Centre) located on Tisch Avenue, New Plymouth. Wastewater from backwashing the water filtration system and emptying the outdoor pools is discharged from the ocean outfall situated on the Kawaroa Reef foreshore, to the east of the facility.
129. **During the monitoring period, NPDC demonstrated an overall level of environmental performance that requires improvement and a high level of administrative performance.**
130. New Plymouth District Council holds two resource consents, which allow them to discharge swimming pool wastewater into the Tasman Sea and to erect, place, use and maintain an ocean outfall at the site. These consents include a total of 13 special conditions setting out the requirements that the Company must satisfy.
131. The Council's monitoring programme for the year under review included one site inspection, two physicochemical sampling surveys of the indoor and outdoor pool discharges, and two follow up marine ecological inspections.
132. The monitoring showed that all results from the indoor pool, outdoor pool and shoreline samples were compliant with consent limits and did not appear to show any significant effects on the ecology of the Kawaroa Reef, outside of the designated mixing zone.
133. There was one instance of non-compliance during the monitoring period where an unauthorised discharge of suspended materials (paint chips) was spilt onto the reef, following the emptying of the outdoor pools. No adverse effects on local intertidal communities were observed beyond the 5m mixing zone on this occasion. A review of consent 2339-4.0 was requested in June 2022 resulting in an additional condition being added to the consent, which ensures the Aquatic Centre shall prepare and maintain an operation, maintenance and discharge management plan that documents the procedures used on site.
134. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a level that requires improvement.
135. This report includes recommendations for the 2022-2023 year.

## **22-65 Hickman JD 1997 Family Trust Monitoring Programme Annual Report 2021-2022**

136. The Hickman JD 1997 Family Trust (the Trust) operates a road transport depot located on Waitara Road at Brixton, Waitara, in the Waiongana catchment. The operations at this site mainly involve packaged dairy related products. Goods are stored under roofed catchments with the remaining areas being paved or gravel. The site also has a vehicle parts wash facility with wastewater draining to sumps and then to the stormwater system. There is a truck wash onsite that the Trust had advised drains to trade waste.
137. **During the monitoring period, the Trust demonstrated a good level of environmental and administrative performance.**
138. The Trust holds one resource consent, which includes a total of nine conditions setting out the requirements that the Trust must satisfy. The consent allows the Trust to discharge stormwater from their road transport depot and washwater from a vehicle parts wash on their site into an unnamed tributary of the Waiongana Stream.

139. The Council's monitoring programme for the year under review included one inspection and four water samples collected for physicochemical analysis.
140. The monitoring showed that the products transported through the site were well managed and the sediment control systems were operating at a standard to achieve consent compliance, as demonstrated by the results of the physicochemical sampling. However there is some concern that the sand trap may not be of suitable capacity for the size of the site.
141. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance has improved since the previous year's review.
142. This report includes recommendations for the 2022-2023 year.

### **22-67 Corteva Agriscience New Zealand Ltd Monitoring Programme Annual Report 2021-2022**

143. During the reporting period, Corteva Agriscience New Zealand Limited (Corteva), formerly Dow AgroSciences (NZ) Ltd, operated an industrial agrichemical formulating and packaging facility located at Paritutu Road, New Plymouth, in the Herekawe catchment. In the previous monitoring period, Corteva had announced the closure of the plant and ceased all production.
144. An update on the history, current status and next steps in relation to the Dow Paritutu site was provided to the Committee via the Operations and Regulatory meeting of 7 February 2023. Environmental monitoring continues to be undertaken by the Council to ensure that no adverse effects occur during the site shutdown, demolition and remediation phases.
145. **During the monitoring period, the Company demonstrated an overall high level of environmental and administrative performance.**
146. The Council's monitoring programme for the year under review included four inspections, one set of water samples collected for pesticide analysis, two biomonitoring surveys of receiving waters and an intertidal marine inspection. Corteva provided groundwater and stormwater data from monitoring carried out by independent consultants.
147. The monitoring showed that Corteva has had no significant impact on air quality in the vicinity of the plant or on water quality in the Herekawe Stream.
148. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remained at a high level.
149. This report includes recommendations for the 2022-2023 year.

### **22-73 Ample Group Ltd Monitoring Programme Annual Report 2021-2022**

150. Ample Group Ltd (the Company) operate an abattoir, located on Mountain Road at Stratford, in the Kahouri Stream catchment, a tributary of the Patea River. The Company currently processes only beef. Wastewater is treated in a two pond system, which is either irrigated to land when conditions allow, or to the Kahouri Stream, ideally during high flow conditions.

151. **During the monitoring period, Ample Group Limited demonstrated a good level of environmental performance, and poor administrative performance, resulting in a poor rating overall.**
152. The Company holds six resource consents, which include a total of 92 conditions setting out the requirements that the Company must satisfy. The Company holds one consent to allow it to take and use water, two consents to discharge effluent and stormwater into the Kahouri Stream, two consents to discharge wastewater and degenerating product to land, and one consent to discharge emissions into the air at this site.
153. The Council's monitoring programme for the year under review included five inspections, eight water samples collected for physicochemical analysis, two wastewater samples collected for physicochemical analysis, one hydrological gauging and two, three site biomonitoring surveys.
154. The monitoring indicated that while environmental performance was good in some areas, there were also areas that needed improvement. There needs to be a focus on minimising the generation of wastewater as a significant amount of wastewater appears to be sourced from groundwater infiltration into the wastewater ponds. Prior to February 2022 water abstraction levels were not recorded due to power failure to a datalogger. The discharge of wastewater into the Kahouri Stream met the required dilution level and did not cause any noticeable impact on the macroinvertebrate communities of the Kahouri Stream. The irrigation of wastewater onto land needs to be improved, with better rotation of paddocks to prevent excessive amounts of wastewater being discharged onto the same paddock. There was no evidence of excessive leaching of irrigation water into nearby waterbodies, with only minor changes in water quality parameters for the unnamed tributary and Kahouri Stream as they flowed through the Company's site.
155. The rendering plant did not operate during the period under review and this has significantly reduced odour issues with no odour complaints related to the site. Furthermore, disposal of dead stock/material is being achieved by sending all material offsite as opposed to burying waste, further reducing the potential for odour to be generated at the site, and the flow of contaminants to groundwater.
156. There were several incidents of non-compliance during the period under review. Firstly, an abatement notice was issued in relation to excessive rubbish on-site, however compliance was achieved during a subsequent inspection. Secondly, there was an incident in relation to a faulty datalogger. The purpose of the datalogger was to record water abstraction from the Kahouri Stream. Its failure prevented assessment of several consent conditions, and in response an infringement notice was issued. Lastly, the wastewater records indicated that there were several instances of discharges to land that exceeded the maximum allowable 15 day rolling average, and in response an infringement notice was issued.
157. While there were no significant adverse environmental effects arising from the Company's non-compliance, there were several issues of non-compliance that required enforcement interventions by the Council.
158. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains poor overall. However environmental performance specifically, improved from poor to good in the current monitoring period. This report includes recommendations for the 2022-2023 year.

## **22-84 NPDC Coastal Structures Monitoring Programme Biennial Report 2020-2022**

159. New Plymouth District Council (NPDC) is responsible for various coastal permits around the New Plymouth area, with 46 resource consents assessed as part of this monitoring programme. There are 26 permits relating to coastal protection, six permits relating to stormwater outfalls, five permits for access structures, three permits covering stream outlet structures, three permits for bridges and three permits for outfall structures. NPDC holds additional coastal permits which are assessed and reported on within separate site specific monitoring programmes. Seven resource consents were reviewed during the monitoring period as the conditions were assessed as being inadequate to detect and address potential adverse effects that could arise from the exercise of the consents.
160. **During the monitoring period, NPDC demonstrated an overall good level of environmental and administrative performance.**
161. The Council's monitoring programme for the period under review included an annual inspection of each of the major protection structures, and a biennial inspection of the remaining structures. NPDC also inspected the structures and reported their findings to Council for review. The first round of beach profile surveying was carried out during the monitoring period.
162. During the year, NPDC demonstrated a good level of environmental and administrative performance with their coastal structure resource consents. There were no significant incidents during the year, however there were two occasions where consent conditions were not complied with, and one which resulted in an Abatement Notice being issued. It should be noted that NPDC have taken action to address both non-compliances, and despite these issues their overall monitoring and management of coastal structures has improved markedly over the last couple of years.
163. The results of Council monitoring found that the majority of coastal structures were well maintained by NPDC during the period under review. NPDC adhered to the recently developed guidance for planning coastal structure maintenance with regard to Kororā (Little Blue Penguin) during the monitoring period. This included considering the location of the works (with regards to known nesting hotspots), the timing of the works (avoiding sensitive nesting and moulting periods), early engagement with Council, and undertaking surveys with trained penguin detection dogs where necessary to inform the maintenance planning phase.
164. For the majority of structures, there were no definitive adverse impacts on the surrounding environment, based on visual observations. Additional monitoring (beach profile surveying), commenced during the monitoring period to enable improved detection of shoreline changes and potential adverse effects. NPDC were required to investigate the recent erosion of the Waitara East Beach shoreline, as identified during the last monitoring period. At the time of writing this report, Council is satisfied with the progress that has been made with this investigation, with findings due to be provided in early 2023.
165. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance decreased from high to good (based on consent ratings related to the compliance issues). However, NPDC's overall management of the coastal structures has continued to improve in recent years.
166. This report includes recommendations for the 2022-2024 monitoring period.

## **22-102 Civil Quarries Ltd-Everett Road Quarry Monitoring Programme Annual Report 2021-2022**

167. Civil Quarries Ltd (the Company) operates a quarry located on Everett Road at Everett Park, in the Kurapete catchment. Aggregate is extracted and washed onsite. The quarry is passively dewatered, with intercepted groundwater and stormwater treated through a series of settlement ponds before being discharged to surface water.
168. **During the monitoring period, Civil Quarries Ltd demonstrated an overall level of environmental and administrative performance that required improvement.**
169. The Company holds two resource consents, which include a total of 25 conditions setting out the requirements that the Company must satisfy. The Company holds consents that allow it to take and use groundwater and discharge stormwater and treated groundwater into an unnamed tributary of the Kurapete stream.
170. The Council's monitoring programme for the year under review comprised four scheduled inspections, which included stormwater discharge and stream samples collected for physicochemical analysis. A biomonitoring survey of receiving waters was also carried out.
171. During the year under review, the Company breached best practice as oil was found in a stormwater pond; an abatement notice was issued. There was also one incident recording non-compliance in regards to turbidity limits in the receiving waters, indicating further improvements in stormwater management are still required. An abatement notice was issued in relation to this non-compliance. The biomonitoring survey showed that quarry discharges did not have a significant effect on the macroinvertebrate community immediately downstream of the point of discharge to the Kurapete Stream. There were no impacts evident further downstream. Overall however, the Kurapete Stream was considered to be in better condition than in the previous survey.
172. There were also ongoing issues with the positioning of flowmeters. Water take and discharge rates are now being telemetered to the Council, but a review of the placement of the flowmeters is still required. The separate groundwater and surface water monitoring programme has commenced and a report shall be provided to the Council in the next monitoring year.
173. In terms of overall environmental and compliance performance by the consent holder over the last several years, this report shows that the consent holder's performance remains at a level that requires improvement.
174. This report includes recommendations for the 2022-2023 year, including a recommendation relating to the optional review of consents 1113-5.1 and 10247-1.1.

### **Financial considerations - LTP/Annual Plan**

175. 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**

176. 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**

177. 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.
178. Seeking continued improvement in the environmental and administrative performance of consented activities through Council's compliance monitoring programmes contributes to addressing a range of issues and priorities identified by iwi/hapū, such as those as set out in Iwi Management Plans.

### **Community considerations**

179. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

### **Legal considerations**

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



**Date** 26 April 2023

**Subject:** **Incidents, Compliance Monitoring Non-Compliances and Enforcement Summary - 18 February 2023 to 29 March 2023**

**Approved by:** A D McLay, Director - Resource Management  
S J Ruru, Chief Executive

**Document:** 3161785

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### **Purpose**

1. The purpose of this memorandum is to allow the Council to consider and receive the summary of the incidents, compliance monitoring non-compliances and enforcement for the period 18 February 2023 to 29 March 2023.
2. The annual inspection for farm dairy effluent monitoring programme commences in September each year and usually finishes around March, however follow up inspections and winter milking inspections are also carried out during the rest of the year.

### **Executive summary**

#### **Incidents**

3. There are eighty (80) incidents reported.
4. Forty five (45) of the incidents were found to be compliant and twenty two (22) were found to be non-compliant. Thirteen (13) of the incidents reported relate to non-compliances from previous periods (updates). The action taken on the incidents is set out for Members information.

#### **Compliance monitoring non-compliances**

5. There are forty nine (49) compliance monitoring non-compliances reported. Fifteen (15) of the compliance monitoring non-compliances reported are updates from previous periods.
6. Thirty nine (39) of the non-compliances reported are as a result of the annual dairy inspection round.

## Recommendations

That the Taranaki Regional Council:

- a) receives this memorandum *Incident, Compliance Monitoring Non-Compliances and Enforcement Summary – 18 February 2023 to 29 March 2023*
- b) receives the summary of the incidents, compliance monitoring non-compliances and enforcement for the period from 18 February 2023 to 29 March 2023, notes the action taken by staff acting under delegated authority and adopts the recommendations therein.

## Background

7. The Council receives and responds to pollution events and public complaints throughout the year. Consent compliance monitoring undertaken can also identify non-compliance. This information is recorded in the IRIS database together with the results of investigations and any follow-up actions. Such incidents and non-compliances are publicly reported to the Council through the Consents and Regulatory Committee via the Incidents, Compliance Monitoring Non-compliances and Enforcement Report or the Annual Compliance Monitoring Reports.
8. Attached is the summary of the Incidents, Compliance Monitoring Non-compliances and Enforcement for the period from 18 February 2023 to 29 March 2023.
9. Staff have been delegated by the Council to undertake enforcement actions. The enforcement policy and procedures are approved by the Council and then consistently implemented and reported on by staff.

## Disclosure Restrictions

10. The incident register information presentation was reviewed in 2014-2015 to increase reader understanding in this complex area. The first section addresses compliant incidents and can be publicly discussed. The second section provides an update on non-compliant incidents from previous meetings and where an incident has been resolved it can be publicly discussed. The third and fourth sections provide information on non-compliant incidents and non-compliances found during compliance monitoring during the period that are still under investigation and staff are limited in terms of public disclosure of information, while the investigation is ongoing and enforcement responses have not been determined. The incident flow chart and definition of terms provide further operational detail.

## Discussion

11. Council responds to all complaints received with most complaints responded to within four hours. This usually involves a site visit. Responses to complaints and non-compliances with rules in the Council's regional plans, resource consents and the Resource Management Act 1991 are recorded in the IRIS database. Where necessary, appropriate advisory or enforcement actions are undertaken. The latter may include issuing an inspection, abatement or infringement notice, or initiating a prosecution. Where an infringement notice or prosecution is possible, details of the information in the Incidents, Compliance Monitoring Non-compliances and Enforcement agenda item and staff comment will be restricted for legal disclosure reasons. Further information will be provided at a later date to the Council and for prosecutions a detailed report will be provided for information purposes, in the confidential section of the agenda.



12. A summary of Incidents, Compliance Monitoring Non-compliances and Enforcement for the period 18 February 2023 to 29 March 2023 is attached. The 'compliant' incidents are presented first in a table and the 'non-compliant' incidents are presented after in a more detailed summary, followed by the compliance monitoring non-compliances.
13. Generally, incidents in the 'compliant' table have a recommendation of 'no further action'. However, an incident is considered 'compliant' until such time as a non-compliance is found. Therefore, occasionally an incident in the 'compliant' table will have a recommendation of 'investigation continuing', if an ongoing investigation is still underway to confirm compliance.
14. A series of graphs are also attached comparing the number of incidents between 2016-2017 and 2021-2022, and also showing how the incidents are tracking in 2021-2022 in relation to environment type and compliance status. There is a graph showing the non-compliances found during compliance monitoring. There is also a graph showing enforcement action taken to date during 2021-2022.
15. The data in the graphs for 2021-2022 to date is showing that there are more incidents but less compliance monitoring non-compliances. Although in the first month of this period, there is limited data.

### **Decision-making considerations**

16. 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**

17. 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**

18. 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**

19. 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.

### **Community considerations**

20. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

### **Legal considerations**

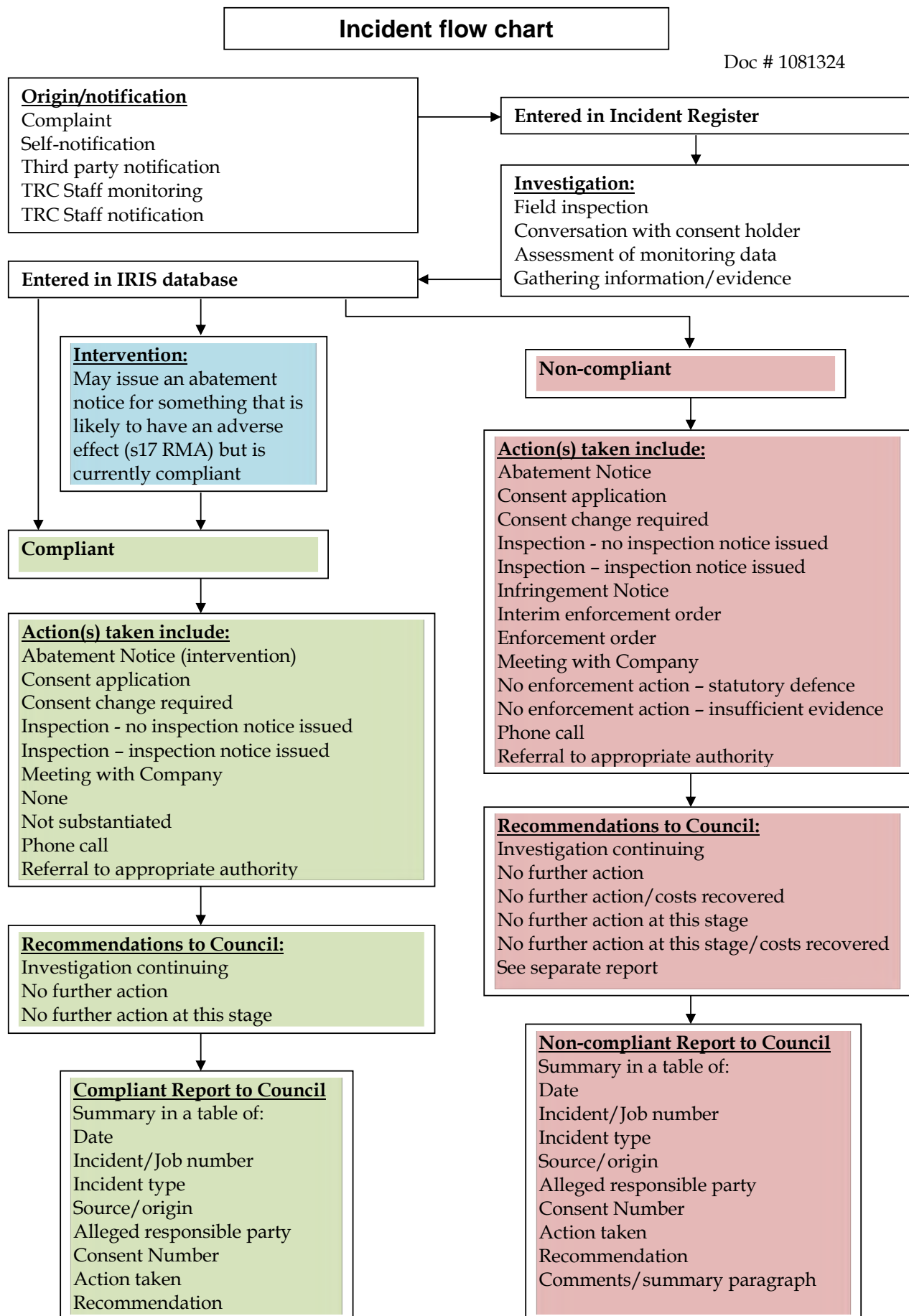
21. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

### **Appendices/Attachments**

Document 1081324: Incident flowchart and terms explained

Document 3161786: Incident and Enforcement Graphs to 31March 2023

Document 3163201: Incidents, Compliance Monitoring and Enforcement Summary 18 Feb 2023 to 29 Mar 2023



## Terms explained

### Compliance rating

Compliant	After investigation the incident was found to be <u>compliant</u> with environmental standards or other regulations, permitted rules in a regional plan (e.g. RFWP, RAQP, RCP allowed), a resource consent and/or the Resource Management Act 1991.
Non-compliant	After investigation the incident was found to be <u>non-compliant</u> with environmental standards or other regulations, rules in a regional plan, a resource consent and/or the Resource Management Act 1991

### Origin/Notification:

Complaint	Notification of incident received from public.
Self notification	Notification of incident received from the responsible party.
Third Party Notification	Notification of incident received from third party such as New Zealand Fire, District Council etc.
TRC Staff monitoring	Notification of incident found during routine compliance monitoring.
TRC Staff notification	Notification of incident found during unrelated monitoring/field work.

### Action/s Taken:

14 day Letter	A letter was sent requesting an explanation for the non-compliance and why enforcement action should not be considered. The recipient is given 14 days to reply.
Abatement Notice	A notice was issued requiring something to be undertaken or something to cease to ensure compliance with Rules in the regional plans, resource consent or Resource Management Act 1991. Notice must be complied with or further enforcement action can be considered.
Consent application	A consent application has been received as a result of the investigation.
Consent change required	During the investigation it was found that a consent change was required.
Emergency Works	Emergency works was allowed under section 330 of the RMA. Often a subsequent resource consent is required.
Enforcement Order	An enforcement order has been issued by the Environment Court requiring action to be undertaken or something to cease. Notice must be complied with or further enforcement action can be

	considered.
Infringement Notice (\$xxx.xx)	An infringement notice was issued under Section 338(1)(a) of the Resource Management Act 1991 and Councils delegated authority.
Inspection Notice	An inspection was undertaken and a notice of advice/instruction was issued to landowner/alleged offender.
Inspection/no notice issued	An inspection was undertaken, however no inspection notice was issued as there was no alleged offender/landowner to issue one to (natural event, unsourced etc).
Interim Enforcement Order	An interim enforcement order has been issued by the Environment Court requiring action to be undertaken or something to cease. Notice must be complied with or further enforcement action can be considered.
Meeting with Company	A meeting was held with the Company to discuss the incident and ways to resolve any issues.
None	No action was required.
Not Substantiated	The incident could not be substantiated (i.e. it is not likely/possible/probable that the alleged incident could have taken place).
Phone call	A phone call was made to the alleged offender/authority.
Prosecution	A prosecution is being initiated for this incident.
Referral to Appropriate Authority	The incident was referred to the appropriate authority (District Council, Department of Conservation etc).

### Recommendations to Council

Investigation continuing	Outcome has not been finalised. Investigation is continuing on this incident, information/evidence still being gathered. Further action, including enforcement are being considered and therefore legally all information cannot be reported on this incident at this stage. These incidents will continue to be reported as updates in the following agendas.
No Further Action	Investigation is completed, any required enforcement action has been undertaken and no further action is required.
No Further Action At This Stage	Investigation is completed, any required enforcement action has been undertaken and further action may be required at a later date.
No Further Action/Costs Recovered	Investigation is completed, any required enforcement action has been undertaken and no further action is required. Costs will be recovered from the alleged offender for the investigation.

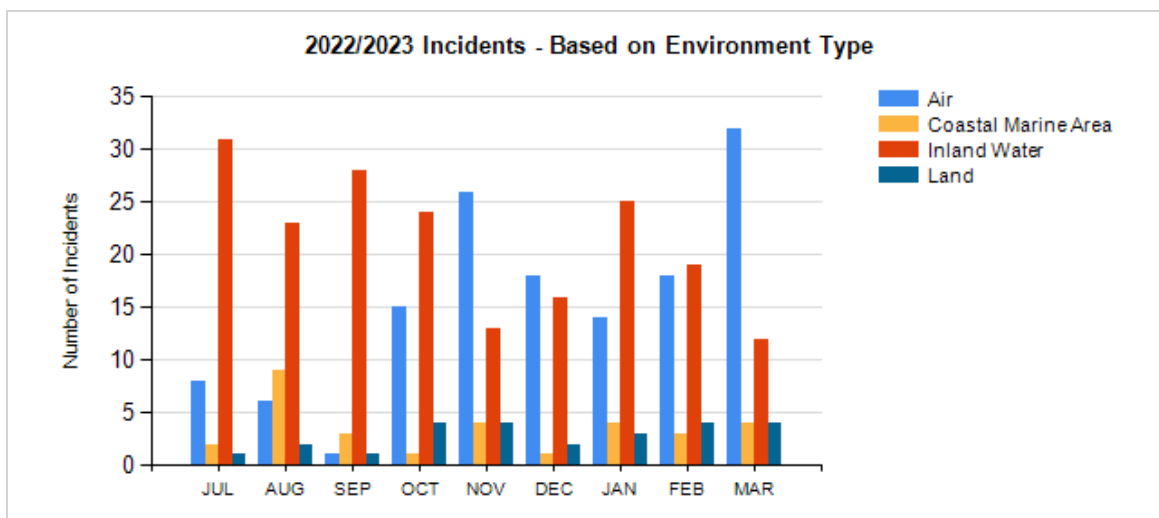
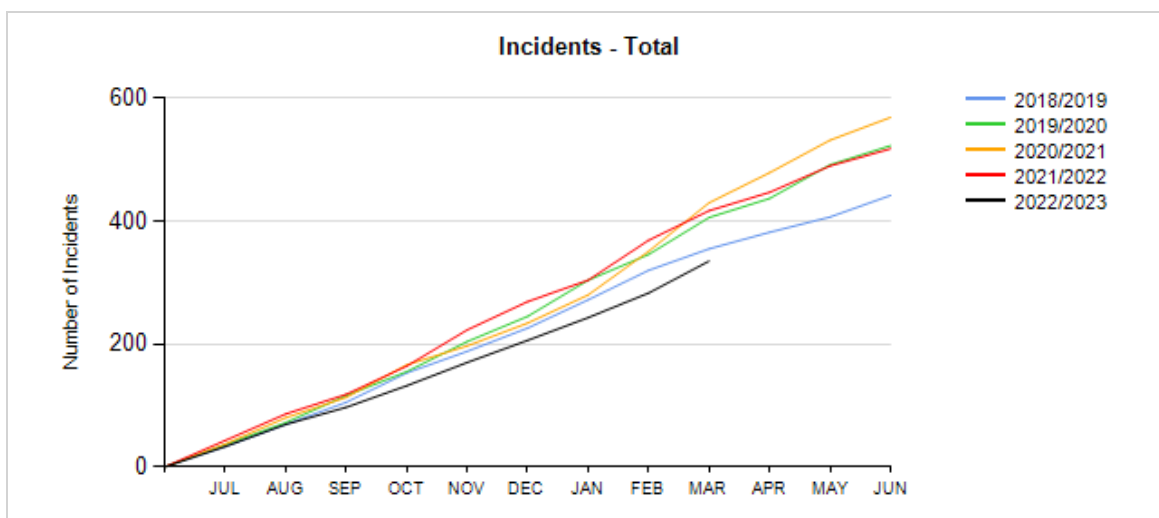
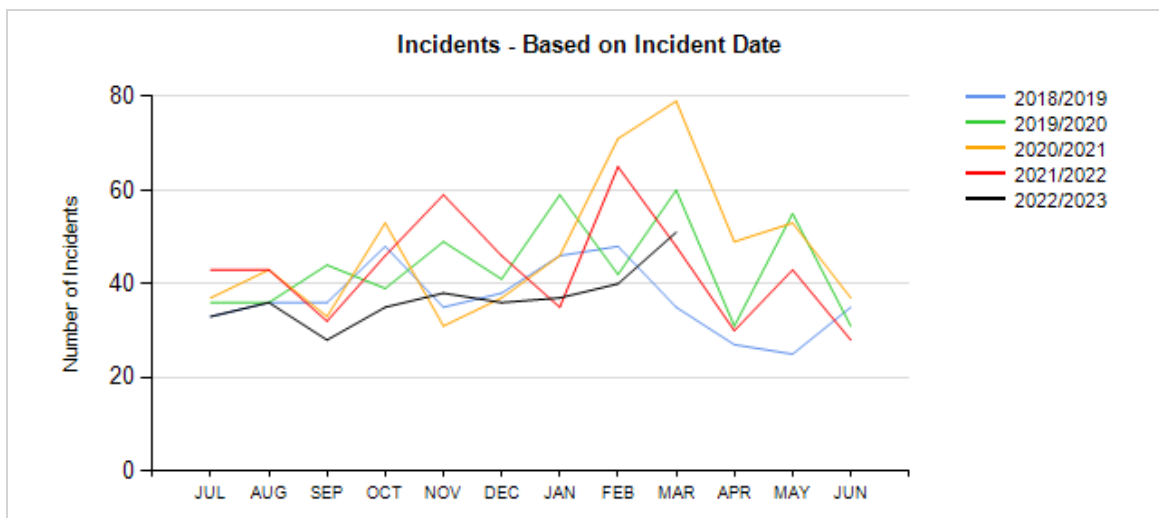
No further Action at this Stage/Costs Recovered	Investigation is completed, any required enforcement action has been undertaken and further action may be required at a later date (reinspection of Abatement Notice etc). Costs will be recovered from the alleged offender for the investigation.
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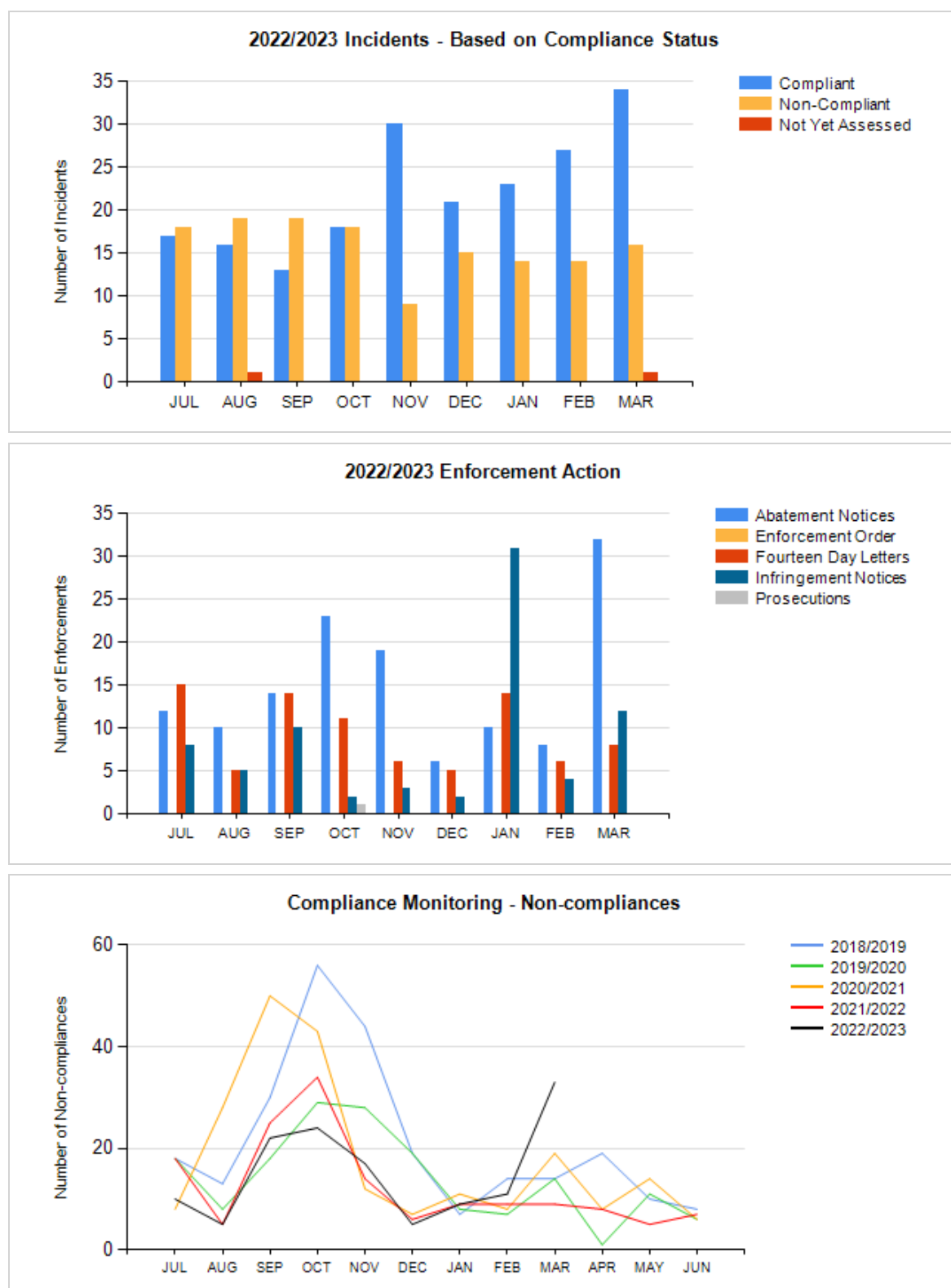
#### **Defences under Sections 340 and 341 of the Resource Management Act 1991**

Sometimes no enforcement action is undertaken against an alleged offender for a non-compliant incident as they have a defence under Section 340 of the Resource Management Act 1991 including reasons such as:

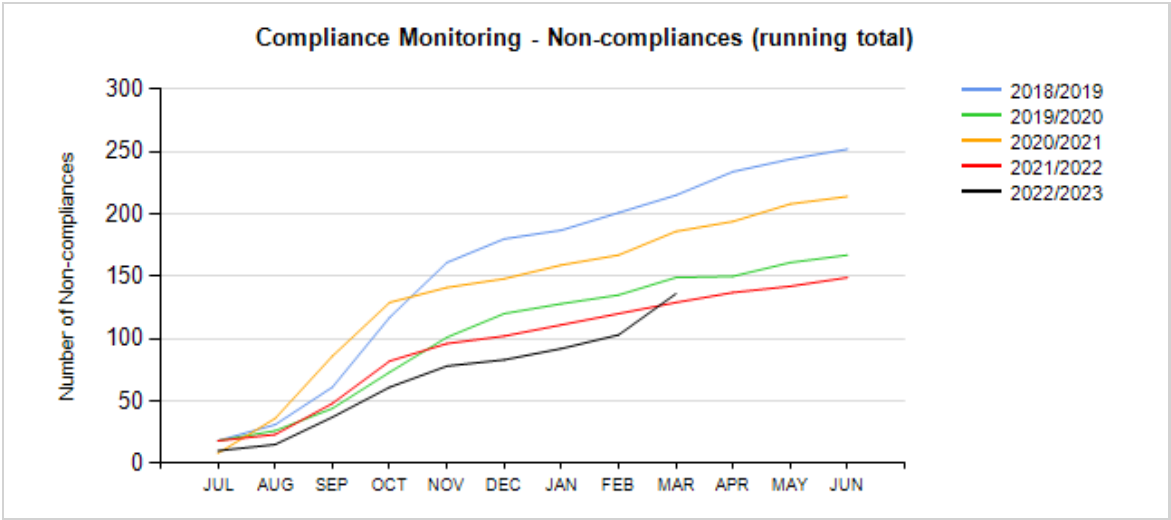
- the defendant can prove that he or she did not know, and could not reasonably be expected to have known that the offence was to be or was being committed, or
- that he or she took all reasonable steps to prevent the commission of the offence, or
- the action or event could not reasonably have been foreseen or been provided against by the defendant.

### Incident and Enforcement Graphs to 31 March 2023









**Compliant Incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Compliance Status	Recommendation
18 Feb 2023	3301-23-277 IN/47108	Alleged smoke/ash - Egmont Road, New Plymouth	Complaint	RAQP Allowed	No Further Action
20 Feb 2023	3301-23-278 IN/47093	Alleged sewage odour - Devon Street, Waiwhakaiho	Complaint	RAQP Allowed	No Further Action
20 Feb 2023	3301-123-279 IN/47097	Alleged sewage overflow - South Road, Opunake	Complaint	Consent Compliance	No Further Action
20 Feb 2023	3301-23-280 IN/47099	Alleged in stream works - Lower Timaru Road, Oakura.	Complaint	RFWP Allowed	No Further Action
21 Feb 2023	3301-23-282 IN/47105	Alleged discoloured stream - Quin Crescent, Hawera	Complaint	RFWP Allowed	No Further Action
21 Feb 2023	3301-23-284 IN/47116	Alleged burning - Rata Street, Hawera	Complaint	RAQP Allowed	No Further Action
22 Feb 2023	3301-23-283 IN/47115	Alleged odour - Severn Street, Waitotara	Complaint	RAQP Allowed	No Further Action
22 Feb 2023	3301-23-288 IN/47133	Alleged burning - Rata Street, Inglewood	Complaint	RAQP Allowed	No Further Action
22 Feb 2023	3301-23-289 IN/47134	Alleged odour - Kohiti Road, Okaiawa	Complaint	Consent Compliance	No Further Action
23 Feb 2023	3301-23-286 IN/47129	Alleged dust - Lemon Street, New Plymouth	Complaint	RFWP Allowed	No Further Action

**Compliant Incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Compliance Status	Recommendation
23 Feb 2023	3301-23-287 IN/47131	Alleged smoke/burning - Joll Street, Waitara	Complaint	RAQP Allowed	No Further Action
28 Feb 2023	3301-23-292 IN/47159	Alleged burning - Severn Street, Waitotara	Complaint	RAQP Allowed	No Further Action
28 Feb 2023	3301-23-301 IN/47172	Alleged sewage odour - Colson Road, New Plymouth	Complaint	RAQP Allowed	No Further Action
1 Mar 2023	3301-23-293 IN/47174	Alleged odour - Morgan Lane, New Plymouth	Complaint	RAQP Allowed	No Further Action
2 Mar 2023	3301-23-303 IN/47196	Alleged water contamination - Lower Glenn Road, Kaupokonui	Complaint	RFWP Allowed	No Further Action
2 Mar 2023	3301-23-302 IN/47197	Alleged odour - Kohiti Road, Okaiawa	Complaint	Consent Compliance	No Further Action
2 Mar 2023	3301-23-342 IN/47370	Alleged dust - Ainslee Street, New Plymouth	Complaint	RAQP Allowed	No Further Action
3 Mar 2023	3301-23-295 IN/47238	Alleged dust - Monmouth Road, Stratford	Complaint	RAQP Allowed	No Further Action
3 Mar 2023	3301-23-296 IN/47239	Alleged odour - Kohiti Road, Okaiawa	Complaint	Consent Compliance	No Further Action
4 Mar 2023	3301-23-297 IN/47240	Alleged dust - Carrington Street, New Plymouth	Complaint	RAQP Allowed	No Further Action

**Compliant Incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Compliance Status	Recommendation
4 Mar 2023	3301-23-298 IN/47251	Alleged odour - Kohiti Road, Okaiawa	Complaint	Consent Compliance	No Further Action
6 Mar 2023	3301-23-300 IN/47214	Alleged discharge - Caltex Street, New Plymouth	Complaint	RFWP Allowed	No Further Action
6 Mar 2023	3301-23-307 IN/47215	Alleged burning - Morgan Lane, New Plymouth	Complaint	RAQP Allowed	No Further Action
6 Mar 2023	3301-23-319 IN/47220	Alleged backyard burning - Stanners Street, Eltham	Complaint	RAQP Allowed	No Further Action
6 Mar 2023	3301-23-299 IN/47270	Alleged sewage in river - SH3, New Plymouth	Complaint	RFWP Allowed	No Further Action
6 Mar 2023	3301-23-326 IN/47295	Alleged dust - Carrington Street, New Plymouth	Complaint	RAQP Allowed	No Further Action
7 Mar 2023	3301-23-304 IN/47190	Alleged backyard burning - Patu Kukapa Street, Manaia	Complaint	RAQP Allowed	No Further Action
8 Mar 2023	3301-23-310 IN/47202	Alleged odour - Mokau Road, Uruti	Complaint	Consent Compliance	No Further Action
9 Mar 2023	3301-23-308 IN/47221	Alleged dust - Mountain Road, Stratford	Complaint	RAQP Allowed	No Further Action
9 Mar 2023	3301-23-311 IN/47223	Alleged burning - Rata Street, Hawera	Complaint	RAQP Allowed	No Further Action

**Compliant Incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Compliance Status	Recommendation
9 Mar 2023	3301-23-314 IN/47224	Alleged burning - Albert Street, Hawera	Complaint	RAQP Allowed	No Further Action
9 Mar 2023	3301-23-320 IN/47237	Alleged dead sheep - Celia Street, Stratford	Complaint	RFWP Allowed	No Further Action
9 Mar 2023	3301-23-313 IN/47271	Alleged odour - Bedford Road, Inglewood	Complaint	RAQP Allowed	No Further Action
11 Mar 2023	3301-23-316 IN/47236	Alleged odour - Kohiti Road, Okaiawa	Complaint	Consent Compliance	No Further Action
12 Mar 2023	3301-23-318 IN/47283	Alleged smoke - South Road, Opunake	Complaint	RAQP Allowed	No Further Action
14 Mar 2023	3301-23-322 IN/47288	Alleged odour - Morgan Lane, New Plymouth	Complaint	RAQP Allowed	No Further Action
15 Mar 2023	3301-23-321 IN/47249	Alleged foamy discharge - Herekawe Stream - New Plymouth	Complaint	Not Applicable/Natural Event	No Further Action
16 Mar 2023	3301-23-325 IN/47261	Alleged sewage odour - Devon Street, New Plymouth	Complaint	RAQP Allowed	No Further Action
16 Mar 2023	3301-23-323 IN/47290	Alleged odour - Mokau Road, Uruti	Complaint	Consent Compliance	No Further Action
21 Mar 2023	3301-23-330 IN/47304	Alleged rubbish odour - Saltash Street, New Plymouth	Complaint	RAQP Allowed	No Further Action

**Compliant Incidents for the period 18 Feb 2023 to 29 Mar 2023**

<b>Incident Date</b>	<b>Job Number IRIS ID</b>	<b>Incident Type</b>	<b>Source</b>	<b>Compliance Status</b>	<b>Recommendation</b>
23 Mar 2023	3301-23-331 IN/47320	Alleged green stream - Mid Puniho Road, Okato	Complaint	RFWP Allowed	No Further Action
24 Mar 2023	3301-23-335 IN/47330	Alleged sewage discharge - Stafford Street, Waitara	Complaint	Not Applicable/Natural Event	No Further Action
24 Mar 2023	3301-23-336 IN/47332	Alleged backyard burning - High Street, Eltham	Complaint	RAQP Allowed	No Further Action
28 Mar 2023	3301-23-338 IN/47359	Alleged sandtrap cleanings - South Road, Hawera	Complaint	Consent Compliance	No Further Action
29 Mar 2023	3301-23-343 IN/47376	Alleged dust - Carrington Street, New Plymouth	Complaint	RAQP Allowed	No Further Action

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
4 Jul 2022 <u>Update</u>	3301-23-003 IN/45574	Silt and erosion - Mangamahoe Stream, New Plymouth	Complaint	Downer EDI Works (29406) New Plymouth District Council (9565)	R2/10192-1.0	EAC-24642 - Explanation Requested - Letter EAC-24646 - Explanation Requested - Letter EAC-24647 - Abatement Notice	No Further Action/Costs Recovered

**Comments:** A complaint was received concerning silt and sediment discharging into the Mangamahoe Stream near Lake Mangamahoe, New Plymouth. Investigation found that there had been work undertaken on an instream structure known as the Lower Head Dam. A significant amount of silt and sediment had been discharged downstream of the structure. Upstream of the structure it was evident that significant erosion had occurred and would continue to occur. Further investigation found that silt controls that had been installed downstream had become overwhelmed and were offering no sediment control. Photographs, videos, and samples were taken. Letters of explanation were received. Significant works were subsequently undertaken to remove the dam structure above the stream bed and rock armouring was installed to stabilise the site and allow it to adequately convey flood flows. A resource consent application has been received, to authorise the complete removal of the structure. A case review process was undertaken and was decided that no further action will be taken.

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
11 Jul 2022 <u>Update</u>	3301-23-008 IN/45622	Unauthorised discharge into stream - Rimutauteka Road, Inglewood	TRC Staff Compliance Monitoring	Codylan Farms Limited (36519)	R2/10321-1.0	EAC-24667 - Abatement Notice EAC-24669 - Abatement Notice EAC-24830 - Infringement Notice (\$750) EAC-25039 - Infringement Notice (\$750) EAC-25040 - Infringement Notice (\$750)	Investigation Continuing

**Comments:** During unrelated monitoring of a wellsite, it was found that farm dairy effluent was discharging to a skimmer pit outfall and then into surface water at Rimutauteka Road, Inglewood. Photographs, video and samples were taken. Whilst collecting a sample of the discharge it was also noted that silage leachate was discharging to the stream causing sewage fungus growths downstream of the discharge. The discharge of farm dairy effluent was in contravention of consent conditions and the discharge of leachate was in contravention of Rule 30 of the RFWP. Abatement notices were issued requiring the discharge of dairy effluent to cease and for works to be undertaken to prevent the discharge of silage leachate. Further reinspections have found the abatements notices were not being complied with. A meeting was held with the responsible party to ensure appropriate steps are put in place to achieve compliance. A further reinspection will be undertaken.



**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
7 Sep 2022 <u>Update</u>	3301-23-080 IN/46007	Stream realignment - Komene Road, Okato	Complaint	Denis James & Raewyn Edna Gladys Goodwin (2605)		EAC-24741 - Abatement Notice EAC-24744 - Abatement Notice EAC-24852 - Explanation Requested - Letter EAC-24853 - Explanation Requested - Letter	Investigation Continuing

**Comments:** A complaint was received concerning instream works being undertaken on a property at Komene Road, Okato. Investigation found that works had been undertaken to realign two sections of stream, totalling approximately 380 metres. The works were in contravention of rules in the Regional Fresh Water Plan for Taranaki and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020. An abatement notice was issued requiring works to be undertaken to reinstate the streams. Reinspections undertaken so far have found that the majority of the works required to ensure compliance with the abatement notices have been completed. Further reinspections will be undertaken. A letter of explanation has been received. Further enforcement action is being considered.

13 Sep 2022 <u>Update</u>	3301-23-199 IN/46665	Unconsented culvert - tributary of Wairau Stream - Oakura	TRC Staff Compliance Monitoring	Waka Kotahi NZ Transport Agency (70589)		EAC-24991 - Abatement Notice	No Further Action At This Stage/Costs Recovered
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**Comments:** During routine compliance monitoring it was found that a resource consent had expired for a culvert installed in an unnamed tributary of the Wairau Stream at Oakura. Works were also required to comply with fish passage requirements in the Regional Fresh Water Plan for Taranaki. An abatement notice was issued requiring works to be undertaken to ensure compliance with rules in the Regional Fresh Water Plan for Taranaki. Reinspection will be undertaken after 30 June 2023.

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
<u>13 Sep 2022 Update</u>	3301-23-200 IN/46666	Unconsented culvert - tributary of Waimoku Stream - Oakura	TRC Staff Compliance Monitoring	Waka Kotahi NZ Transport Agency (70589)		EAC-25042 - Abatement Notice	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During routine compliance monitoring it was found that a resource consent had expired for a culvert installed in an unnamed tributary or the Waimoku Stream at Oakura. An abatement notice was issued requiring works to be undertaken to ensure compliance with rules in the Regional Fresh Water Plan for Taranaki. Reinspection will be undertaken after 30 June 2023.							
<u>13 Sep 2022 Update</u>	3301-23-201 IN/46667	Unconsented culvert - Mangati Stream - Bell Block	TRC Staff Compliance Monitoring	Waka Kotahi NZ Transport Agency (70589)		EAC-25043 - Abatement Notice	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During routine compliance monitoring it was found that a resource consent had expired for a culvert installed in an unnamed tributary or the Mangati Stream at Bell Block. An abatement notice was issued requiring works to be undertaken to ensure compliance with rules in the Regional Fresh Water Plan for Taranaki. Reinspection will be undertaken after 30 June 2023.							
<u>2 Dec 2022 Update</u>	3301-23-182 IN/46580	Backyard burning - Glasgow Street, Hawera	Complaint	Cameron Hasler (74607)			No Further Action
<b>Comments:</b> A complaint was received concerning smoke discharging from a fire at a property at Glasgow Street, Hawera. Investigation found burning was occurring in a small 100 litre steel drum, on the property within the defined urban area. There was minimal offsite effects occurring at the time of inspection. Advice and information was provided around rules in the Regional Air Quality Plan for Taranaki. The fire was extinguished.							

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
30 Dec 2022 <u>Update</u>	3301-23-216 IN/46735	Dust - Carrington Street, New Plymouth	Complaint	Darcy Keene Earthmoving Limited (4298) Naki Development Limited (68680)		EAC-24996 - Infringement Notice (\$750)	No Further Action

**Comments:** A complaint was received concerning dust discharging from a subdivision development site at Carrington Street, New Plymouth. Investigation found that objectionable dust was discharging beyond the boundary of the site affecting neighbouring properties. The site is the subject of an abatement notice, issued as a result of a previous non-compliance.

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
17 Jan 2023 <u>Update</u>	3301-23-233 IN/46822	Dairy effluent - Plymouth Road, Oakura	Complaint	Jason Hayward (74663) Martin Strauss (74270) Nicholas & Christine Barrett (3403) Zenith Farms Family Trust (36016) Zenith Trustee 2022 Limited (74713)	R2/1702-3	EAC-24934 - Explanation Requested - Letter EAC-24935 - Explanation Requested - Letter EAC-24936 - Explanation Requested - Letter EAC-24937 - Explanation Requested - Letter EAC-24940 - Explanation Requested - Letter EAC-24945 - Abatement Notice EAC-24947 - Abatement Notice EAC-24948 - Abatement Notice	Investigation Continuing

**Comments:** A complaint was received regarding a 'green' stream at a property at Plymouth Road, Oakura. Investigation found that a tributary of the Tapuae Stream was discoloured. Inspection of upstream properties found that a traveling irrigator had been positioned too close to a stream, resulting in dairy effluent discharging overland and into surface water. The irrigation had ceased at the time of inspection, however discolouration of the stream remained. Abatement notices were issued requiring works to be undertaken to ensure consent compliance. Reinspection found that the abatement notices were being complied with at the time of inspection. Further enforcement action is being considered.

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
30 Jan 2023 <u>Update</u>	3301-23-248 IN/46942	Green Stream - Puniho Road, Okato	Complaint	Denis James & Raewyn Edna Gladys Goodwin (2605)	R2/2628-3.0	EAC-24956 - Explanation Requested - Letter EAC-25041 - Infringement Notice (\$750)	No Further Action/Costs Recovered

**Comments:** A complaint was received concerning a stream running 'green' on Puniho Road, Okato. Investigation found that a dairy effluent irrigator, on an upstream farm, had been operational in close proximity to a stream in contravention of resource consent conditions and an abatement notice, issued as a result of a previous non-compliance. A letter requesting explanation was sent.

3 Feb 2023 <u>Update</u>	3301-23-261 IN/47007	Dairy effluent - Mitchell Road, Manaia	TRC Staff Compliance Monitoring	John Bevins Family Trust trading as Hurford Farms (12849)	R2/6905-1	EAC-24978 - Explanation Requested - Letter	Investigation Continuing
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**Comments:** During a follow-up inspection of advice provided the previous day, it was found that the effluent disposal system was not being operated in accordance with resource consent conditions at Mitchell Road, Manaia. The inspection of a dairy effluent spray irrigation disposal system found the advice had not been followed and it was found that excessive ponding of farm dairy effluent was occurring. A further reinspection found that works had been undertaken to ensure consent compliance. A letter requesting explanation was sent. Enforcement action is being considered.

7 Feb 2023 <u>Update</u>	3301-23-270 IN/47040	Water well - Warea Road, Warea	Complaint	Max Sole (74772)			No Further Action
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**Comments:** A complaint was received concerning a water well that was being used, within 25 metres of the Teikapanua Stream, at a property at Warea Road, Warea. Investigation found that the well consisted of an excavated hole in the ground which was being used as a water source for the property. The location and construction of the well was in contravention of rules in the Regional Fresh Water Plan for Taranaki (RFPW). Reinspection found that the well has been filled in with clean earth and associated infrastructure around the well has been removed. A new well has been installed at the property in accordance with rules in the RFPW.

**Updates of Non-Compliant incidents from previous agendas**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
12 Feb 2023 <u>Update</u>	3301-23-267 IN/47030	Discoloured stream - Norfolk Road, Midhirst	Complaint	John Hussey (54603)	R2/2273-3.0	EAC-24986 - Explanation Requested - Letter EAC-24990 - Explanation Requested - Letter EAC-25035 - Infringement Notice (\$750)	No Further Action/Costs Recovered

**Comments:** A complaint was received concerning a 'green' stream at Norfolk Road, Midhirst. Investigation found that a hose leading to a dairy effluent irrigator had separated causing dairy effluent to flow overland and into a roadside drain, which flowed into an unnamed tributary of the Maketehinu Stream. The contract milker had identified the issue and turned off the irrigator, however failed to take proactive measures to prevent the effluent from discharging into the stream via overland flow.

**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
10 Feb 2023	3301-23-276 IN/47369	Backyard burning - Wynyard and Hunter Streets, Normanby	Complaint	Nathan Taylor (74939)			Investigation Continuing
<b>Comments:</b> A complaint was received concerning black smoke from a fire on a property at the corner of Wynyard and Hunters Streets, Normanby. Investigation found that a fire had been lit in a 1.5 metre tall stainless steel drum on a concrete driveway. The fire was out but still smoking and the smoke was dark black and smelt like plastic. There was evidence that plastic had been burnt in the fire in contravention of rules in the Regional Air Quality Plan for Taranaki. The landowner was advised that such burning is prohibited and they stated they were unaware of the air quality rules and will refrain from using the incinerator again. Enforcement action is being considered.							
13 Feb 2023	3301-23-291 IN/47138	TV near stream	TRC Staff Notification	Unsourced (9768)			No Further Action
<b>Comments:</b> A complaint was received concerning a large television that had been dumped and smashed on the banks of the Pūnehu Stream at South Road, Opunake. The officer located and removed the television at the time of inspection.							
20 Feb 2023	3301-23-281 IN/47107	Burning tyres - Manutahi Road, Bell Block	Complaint	Harvey Schultz (74822)		EAC-25022 - Infringement Notice (\$300)	No Further Action
<b>Comments:</b> A complaint was received concerning the burning of tyres at a property on Manutahi Road, Lepperton. Investigation found that small tyres were being burnt on a fire on the property. The responsible party was advised of the prohibitive rule in the Regional Air Quality Plan for Taranaki and the Resource Management (National Environmental Standards for Air Quality) Regulations 2004.							
22 Feb 2023	3301-23-290 IN/47137	Abandoned vehicle - Kahui Beach - Rahotu	Complaint	Unsourced (9768)			No Further Action
<b>Comments:</b> A complaint was received regarding a burnt out vehicle on Kahui Beach near the Pungaereere River mouth, Rahotu. Investigation located the burnt out vehicle partially buried in the sand. Police were advised, however the owner was unable to be identified. Works are being undertaken by this Council to remove the vehicle.							

**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
23 Feb 2023	3301-23-285 IN/47128	Oil slick - Tasman Sea, near Oakura	Complaint	Unsourced (9768)			No Further Action
<b>Comments:</b> A complaint was received regarding a potential oil slick approximately 4 miles west of the Nga Motu/Sugar Loaf Islands, in the Tasman Sea. A vessel was deployed to inspect the marine reserve area and enquiries were made with various vessel operators in the area. Investigation and enquires failed to locate any oil slick or unauthorised discharges in the marine environment, including the reserve area.							
23 Feb 2023	3301-23-328 IN/47298	Deodouriser discharge - Mokau Road, Uruti	Complaint	Remediation (NZ) Limited (30679)		EAC-25044 - Abatement Notice	No Further Action
<b>Comments:</b> A complaint was received regarding the use of deodourisers and the associated chemicals discharged to air as an odour mitigation measure at a composting facility at Mokau Road, Uruti. This Council was aware that the site had been using deodorisers at their Uruti composting facility for some months as an odour mitigation device, however a recent thorough assessment against the Regional Air Quality Plan for Taranaki (RAQP) found that a resource consent is required to authorise the discharge of odour mitigation chemicals via this method. The Company were advised of the decision and have ceased the operation of the devices which contravened the RAQP.							
3 Mar 2023	3301-23-294 IN/47225	Backyard burning - Stanners Street, Eltham	Complaint	Eden Paora (74936) Richard Mitta (74937)			No Further Action
<b>Comments:</b> A complaint was received concerning smoke from a fire on a property within the defined urban area at Stanners Street, Eltham. Investigation found that household rubbish was being burnt in a small fire. The responsible party explained that the resident of the house had recently passed away and family from outside the region were unaware that burning was prohibited. The fire was immediately extinguished.							



**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
7 Mar 2023	3301-23-306 IN/47216	Earthworks in wetland - Louis Drive, Waitara	Complaint	Brendan King (30006)		EAC-25023 - Abatement Notice	No Further Action
<b>Comments:</b> A complaint was received concerning earthworks in a wetland at Louis Drive, Waitara. Investigation found that minor earthworks had occurred on the property within 10 metres of a wetland in contravention of the Resource Management (National Environmental Standards for Freshwater) Regulation 2020. An abatement notice was issued requiring the works to cease. Reinspection found that the abatement notice was being complied with at the time of inspection.							
8 Mar 2023	3301-23-305 IN/47203	Odour - Kohiti Road, Okaiawa	Complaint	Taranaki By-Products Limited (9197)		EAC-25026 - Abatement Notice	No Further Action/Costs Recovered
<b>Comments:</b> A complaint was received regarding odour discharging from a meat rendering plant near Okaiawa. Odour scouting and surveys were undertaken in the area and objectionable odour was found beyond the boundary of the site. An abatement notice was issued requiring works to be undertaken to ensure that no objectionable or offensive odours occur beyond the boundary of the site. Reinspection found the abatement notice was being complied with at the time of inspection.							
9 Mar 2023	3301-23-309 IN/47222	Hydrocarbon discharge - Port Taranaki - New Plymouth	Self-Notification	DOF Subsea (74977)			No Further Action
<b>Comments:</b> Self-notification was received concerning a minor discharge of hydrocarbons from a hydraulic fluid line on the oil support vessel Skandi Emerald, into the Tasman Sea, at Port Taranaki, New Plymouth. Investigation found that a hydraulic hose contained within the crane on the vessel had failed resulting in hydraulic oil discharging onto the adjacent wharf and into the Tasman Sea. The majority of the hydrocarbons was contained on the wharf and approximately 1-2 litres discharged into the sea. Port Taranaki staff undertook cleanup and recovery operations in accordance with the Companies Tier 1 marine oil spill contingency plan.							

**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
11 Mar 2023	3301-23-315 IN/47233	Vehicle in Lake - Victoria Park, Stratford	Complaint	Unsourced (9768)			No Further Action
<b>Comments:</b> Notification was received concerning a stolen motor vehicle in the Victoria Park Lake in Stratford. Investigation found no contaminants were discharging from the vehicle. Stratford District Council undertook removal of the vehicle.							
12 Mar 2023	3301-23-317 IN/47278	Smoke - Dudley Road, Inglewood	Complaint	Bryce & Leeann Hunger (52908)			No Further Action
<b>Comments:</b> A complaint was received concerning the burning of slash at a farm located on the corner of Dudley Road Upper and Mountain Roads, Inglewood. Investigation located small piles of slash which had been burnt and were still smouldering, resulting in minimal smoke discharging beyond the boundary of the property. The landowner was spoken to and undertook works to completely extinguish the smouldering piles.							
16 Mar 2023	3301-23-324 IN/47294	Oil spill - Lee Breakwater - Port Taranaki	TRC Staff Notification	Unsourced (9768)			No Further Action
<b>Comments:</b> Complaint regarding a hydrocarbon sheen in the Tasman Sea near the Lee Breakwater at Port Taranaki. Investigation found there was a hydrocarbon sheen near the boat ramp. No source could be identified and the hydrocarbon sheen dissipated naturally within half an hour.							
20 Mar 2023	3301-23-327 IN/47291	Dead calf on beach - Fitzroy Beach	Complaint	Unsourced (9768)			No Further Action
<b>Comments:</b> A complaint was received concerning a dead cow on Fitzroy Beach, New Plymouth. The owner was unable to be traced. New Plymouth District Council undertook disposal of the carcass.							

**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
20 Mar 2023	3301-23-329 IN/47301	Foam in Waitaha Stream - Hudson Road, Bell Block	Complaint	Unsourced (9768)			No Further Action
<b>Comments:</b> A complaint was received concerning foam in the Waitaha Stream, near Hudson Road, Bell Block. Investigation found there were some small amounts of foam in the stream upstream of Connett Road. No unauthorised discharges could be found. This stream will be reinspected during routine monitoring.							
22 Mar 2023	3301-23-333 IN/47315	CCA treatment - Ihaia Road, Opunake.	Third Party Notification	Malcolm Thompson (22645)		EAC-25046 - Abatement Notice	Investigation Continuing
<b>Comments:</b> A complaint was received alleging that a sawmill was using Copper Chromium Arsenic (CCA) to treat wood at a sawmill at Ihaia Road, Opunake. Investigation found that CCA was being used to tanalise timber on the premise. The inspection identified that insufficient controls were in place to prevent discharges to the receiving environment from the treatment process. An abatement notice was issued requiring works to be undertaken to ensure compliance with Rule 23 of the Regional Fresh Water Plan for Taranaki. Reinspection will be undertaken after 31 May 2023.							
23 Mar 2023	3301-23-332 IN/47321	Paint discharge - Devon Street West, New Plymouth	Complaint	Unsourced (9768)			No Further Action
<b>Comments:</b> A complaint was received concerning a black substance on the side of the road at Devon Street West, New Plymouth. Investigation found black paint had been spilt on the road and a small amount may have entered the stormwater drain. The paint was dry at that time of inspection and there was no further risk of any discharge to the stormwater system. The responsible party could not be traced.							

**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
24 Mar 2023	3301-23-334 IN/47328	Dairy effluent discharge - Anderson Road, Eltham	Complaint	Paul Cornelius & Christine Maree Erkes (10993)		EAC-25065 - Abatement Notice EAC-25066 - Abatement Notice EAC-25067 - Explanation Requested - Letter	Investigation Continuing
<b>Comments:</b> A complaint was received concerning dairy effluent from race scrapings discharging overland and into a constructed drain, at Anderson Road, Eltham. Investigation found that farm dairy effluent was ponding in a paddock and discharging into the constructed drain in contravention of rules in the Regional Fresh Water Plan for Taranaki. An abatement notice was issued requiring works to be undertaken to prevent further discharge. Reinspection will be undertaken after 30 April 2023. A letter seeking explanation was sent. Further enforcement is being considered.							
25 Mar 2023	3301-23-339 IN/47349	Dust - SH3, Ngaere	Complaint	Downer New Zealand Limited (50648)		EAC-25070 - Explanation Requested - Letter	Investigation Continuing
<b>Comments:</b> A complaint was received concerning dust discharging from roadworks at State Highway 3, Ngaere. Investigation found that offensive levels of dust was discharging from the roadworks site, affecting neighbouring properties, in contravention of Section 15(2A) of the Resource Management Act 1991. A letter requesting explanation was sent. Enforcement action is being considered.							
26 Mar 2023	3301-23-340 IN/47350	Petrol discharge - SH3, Te Roti	Third Party Notification	Unsourced (9768)			No Further Action
<b>Comments:</b> Notification was received from Fire and Emergency New Zealand (FENZ) concerning petrol in a drain from a vehicle accident on State Highway 3, Te Roti. Investigation found that petrol and oil had discharged to a roadside drain. FENZ and a contractor had already undertaken works to block the drain to prevent a discharge to the roadside sump and undertook further works to clean up the site.							

**Non-compliant incidents for the period 18 Feb 2023 to 29 Mar 2023**

Incident Date	Job Number IRIS ID	Incident Type	Source	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
27 Mar 2023	3301-23-337 IN/47342	Dairy effluent discharge - Eltham Road, Eltham	Complaint	Kevin Duthie (24870)	R2/2770-2	EAC-25082 - Abatement Notice	No Further Action At This Stage/Costs Recovered

**Comments:** A complaint was received concerning a dairy effluent discharge to the stream, which had allegedly been occurring for about four days, at Eltham Road, Eltham. Investigation found a farm dairy effluent disposal irrigator had not been moved for several days. There was no evidence of a discharge to water, however, ponding of farm dairy effluent was evident in contravention of resource consent conditions. An abatement Notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 28 April 2023.

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27 Mar 2023	3301-23-341 IN/47360	Sewage overflow - Mill Road, New Plymouth	Complaint	Callan Day (74928)			No Further Action
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**Comments:** A complaint was received concerning sewage discharging from a pipe and flowing into a roadside drain at Mill Road, New Plymouth. Investigation found that there had been an unforeseen blockage in a sewer pipe which had caused untreated sewage and grey water to discharge to the roadside drain. The landowner was contacted and works were immediately undertaken to unblock the pipe. Further works to find the cause of the blockage (possibly tree roots) and remedy the situation were undertaken the following day to prevent further discharges.

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**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
24 Aug 2022 <u>Update</u>	332123-007 ENF-23605	Annual Inspection	Non-compliance	Tractormeisters Limited (21002)	R2/3602-2	EAC-25029 - Explanation Requested - Letter EAC-24718 - Abatement Notice EAC-24716 - Abatement Notice	Investigation Continuing

**Comments:** During the annual dairy inspection round, it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Hu Road, Eltham. Abatement notices were issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection found that Abatement Notice EAC-24718 was not being complied with. An explanation was requested. Further enforcement action is being considered.

20 Oct 2022 <u>Update</u>	332123-056 ENF-23675	Annual Inspection	Significant non-compliance	Francis Mullan (2715)	R2/1176-3	EAC-24999 - Infringement Notice (\$750) EAC-24817 - Explanation Requested - Letter EAC-24813 - Abatement Notice	No Further Action/Costs Recovered
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**Comments:** During analysis of samples (02 November 2022), taken during the annual dairy inspection round (20 October 2022), it was found that the farm dairy effluent oxidation pond disposal system was not operating within resource consent conditions, at Lower Kahui Road, Rahotu. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection found that the abatement notice was being complied with at the time of inspection.

**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
28 Oct 2022 <u>Update</u>	332123-058 ENF-23671	Annual Inspection	Significant non-compliance	Sophie Lance (54141) The Tom Lance Trust (51397) Tom Lance (54140)	R2/3309-3.0	EAC-24914 - Infringement Notice (\$750) EAC-24819 - Abatement Notice EAC-24814 - Abatement Notice	No Further Action/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Parahaki Road, Waverley. Abatement notices were issued requiring the unauthorised discharge of dairy effluent to cease and for works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection found that the abatement notices and resource consent were being complied with at the time of inspection.

17 Nov 2022 <u>Update</u>	332123-081 ENF-23761	Compliance Monitoring Insp.	Non-compliance	Barton Holdings Limited (56677)	R2/7707-1	EAC-24894 - Explanation Requested - Letter EAC-24889 - Abatement Notice	Investigation Continuing
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**Comments:** During analysis of samples taken during routine monitoring it was found there was a minor exceedance of suspended solids in the stormwater discharge at an industrial site at Paraite Road, Bell Block. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Compliance with the abatement notice will be ascertained during routine monitoring. A letter requesting explanation was sent.

**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
22 Nov 2022 <u>Update</u>	332123-055 ENF-23710	Annual Inspection	Significant non-compliance	Keith Leonard & Dell Eileen Harvey (2916)	R2/1609-4.0	EAC-25013 - Infringement Notice (\$750) EAC-24839 - Abatement Notice EAC-24838 - Abatement Notice	No Further Action/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the farm dairy oxidation ponds were not operating within resource consent conditions at Mid Paihaka Road, Pungarehu. Abatement notices were issued requiring the discharge to cease and for works to be undertaken to ensure compliance with resource consent conditions. Reinspection found that the abatement notice and resource consent were being complied with at the time of inspection.

1 Dec 2022 <u>Update</u>	332123-077 ENF-23743	Compliance Monitoring Insp.	Non-compliance	Hintz Family Trust Partnership (12720)	R2/10561-1.1	EAC-24876 - Explanation Requested - Letter	Investigation Continuing
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**Comments:** During a compliance monitoring inspection, it was found that shelter belt planting had not been undertaken as required by resource consent conditions for a proposed boiler farm development at Cardiff Road, Cardiff. An explanation was received and accepted. Council will work with the consent holder to ensure compliance is achieved.



**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
23 Jan 2023 <u>Update</u>	332123-087 ENF-23781	Annual Inspection	Significant non-compliance	Peter Myers (2895)	R2/2395-3.0	EAC-25015 - Infringement Notice (\$750) EAC-24943 - Abatement Notice	Investigation Continuing

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Austin Road, Normanby. An abatement notice was issued requiring the discharge to cease and for works to be undertaken to ensure compliance with resource consent conditions. Reinspection found that the abatement notice was not being complied with. Further enforcement action is being considered. A further reinspection to undertaken after 27 March 2023.

24 Jan 2023 <u>Update</u>	332123-090 ENF-23799	Annual Inspection	Significant non-compliance	Aljo Farm Limited (36655)	R2/3363-2	EAC-25021 - Infringement Notice (\$750)	No Further Action/Costs Recovered
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**Comments:** During the annual dairy monitoring round, it was discovered that the farm dairy effluent disposal system was not operating within resource consent conditions and Abatement Notice EAC-22767, which was issued as a result of a previous non-compliance, on Main South Road, Hawera. Reinspection found that the abatement notice was being complied with at the time of inspection.

**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
25 Jan 2023 <u>Update</u>	332123-088 ENF-23802	Annual Inspection	Significant non-compliance	Peter Myers (2895)	R2/2321-3.0	EAC-25032 - Infringement Notice (\$750) EAC-24965 - Explanation Requested - Letter EAC-24964 - Abatement Notice	No Further Action/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the dairy effluent disposal system was not operating within resource consent conditions on Manawapou Road, Hawera. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. A letter of explanation was received. Reinspection found that the abatement notice was being complied with at the time of inspection.

3 Feb 2023 <u>Update</u>	332123-091 ENF-23813	Compliance Monitoring Insp.	Non-compliance	Airport Farm Trustee Limited (54363) Edward Whiting (51784)	R2/5262-3.0	EAC-24980 - Explanation Requested - Letter EAC-24979 - Abatement Notice	No Further Action/Costs Recovered
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**Comments:** In response to an enquiry from a member of the public, an inspection was undertaken of a free range poultry farming operation on Airport Drive, New Plymouth. While no odours were found beyond the boundary of the site, it was found that resource consent conditions were not being complied with. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. A letter requesting explanation was sent.

**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
7 Feb 2023 <u>Update</u>	332123-096 ENF-23828	Annual Inspection	Non-compliance	Brendan Attrill (13305) Brendan Attrill Agriculture Limited (36469) Soffra Farm Limited (55034)	R2/3775-2	EAC-25001 - Abatement Notice	No Further Action/Costs Recovered

**Comments:** During the annual dairy inspection round, it was found that the farm dairy effluent disposal system was operating under an expired resource consent and therefore was in contravention of Rules 39 and 40 of the Regional Fresh Water Plan for Taranaki (RFPW), at Rotokare Road, Eltham. An abatement notice was issued requiring compliance with rules of the RFPW. A renewal application was received and it is considered that the abatement notice is complied with.

7 Feb 2023 <u>Update</u>	332123-094 ENF-23824	Annual Inspection	Non-compliance	Nigel King Developments Limited (30518)	R2/3279-3.0	EAC-25080 - Explanation Requested - Letter EAC-25028 - Explanation Requested - Letter EAC-24984 - Abatement Notice	Investigation Continuing
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**Comments:** During the annual dairy inspection round, it was found that the farm dairy effluent system was not operating within resource consent conditions at Upland Road, Inglewood. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection found that the abatement notice was not being complied with. Further enforcement action is being considered.

8 Feb 2023 <u>Update</u>	332123-097 ENF-23829	Annual Inspection	Non-compliance	Michael Eggink (15298)	R2/2936-3.0	EAC-24994 - Abatement Notice	No Further Action/Costs Recovered
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Ararata Road, Hawera. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection found that the abatement notice and resource consent were being complied with at the time of inspection.

**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
9 Feb 2023 <u>Update</u>	332123-092 ENF-23814	Annual Inspection	Significant non-compliance	John Goodin (3150)	R2/3607-2	EAC-25033 - Infringement Notice (\$750) EAC-24973 - Explanation Requested - Letter	No Further Action/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the dairy effluent disposal system was not operating within resource consent conditions and Abatement Notice EAC-23226 issued as a result of a previous non-compliance, at Auroa Road, Manaia. A letter requesting explanation was sent. Reinspection found the resource consent and abatement notice were being complied with at the time of inspection.

9 Feb 2023 <u>Update</u>	332123-093 ENF-23815	Annual Inspection	Non-compliance	Ballymullin Farms Limited (32210)	R2/2463-3.0	EAC-24974 - Abatement Notice	No Further Action At This Stage/Costs Recovered
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**Comments:** During the annual dairy inspection round it was found that the dairy effluent disposal system was not operating within resource consent conditions at Patiki Road, Te Kiri. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 1 December 2023.

15 Feb 2023 <u>Update</u>	332123-095 ENF-23825	Annual Inspection	Significant non-compliance	Justin Bishop (71770)	R2/2679-3.0	EAC-25034 - Infringement Notice (\$750) EAC-24985 - Abatement Notice	No Further Action/Costs Recovered
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**Comments:** During the annual dairy inspection round it was found that the dairy effluent disposal system was not operating within resource consent conditions at Egmont Road, Hillsborough. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection found the abatement notice and resource consent were being complied with at the time of inspection.

**Updates of Compliance Monitoring – Non-compliances from previous agendas**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
15 Feb 2023 <u>Update</u>	332123-098 ENF-23834	Annual Inspection	Non-compliance	Nigel Wayne & Denise Mary King (3009)	R2/4276-2.1	EAC-25004 - Abatement Notice	No Further Action At This Stage/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Egmont Road, New Plymouth. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 20 April 2023.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
20 Oct 2022	332123-124 ENF-23891	Follow Up Inspection	Non-compliance	KiwiRail Holdings Limited (50168)	R2/10365-1.0	EAC-25078 - Abatement Notice	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During routine monitoring it was found that fish passage had not been maintained on a structure in the Manganui River at a property on Mountain Road, Midhirst. An abatement notice was issued requiring works to be undertaken to ensure consent compliance. Reinspection will be undertaken after 31 March 2024.							
20 Oct 2022	332123-125 ENF-23892	Follow Up Inspection	Non-compliance	KiwiRail Holdings Limited (50168)	R2/10364-1.0	EAC-25079 - Abatement Notice	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During routine monitoring it was found that fish passage had not been maintained on a structure in the Waipuku Stream at a property a Mountain Road, Midhirst. An abatement notice was issued requiring works to be undertaken to ensure consent compliance. Reinspection will be undertaken after 31 March 2024.							
22 Feb 2023	332123-123 ENF-23889	Hydrological Inspection	Non-compliance	Manawa Energy Limited (74010)	R2/2053-3.2		No Further Action/Costs Recovered

**Comments:** During routine monitoring it was found that the residual flow was below the allowable consent limits at an hydro electric power scheme at Lake Managamahoe, Junction Road, New Plymouth. Steps have been undertaken to ensure compliance. Reinspection found the consent conditions were being complied with.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
27 Feb 2023	332123-106 ENF-23846	Annual Inspection	Significant non-compliance	Margaret Radford (73231)	R2/0249-4.0	EAC-25012 - Abatement Notice	Investigation Continuing

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Warea Road, Warea. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 24 March 2023. Further enforcement action is being considered.

28 Feb 2023	332123-107 ENF-23843	Annual Inspection	Significant non-compliance	Tony Shrader (74845)	R2/2858-3.0	EAC-25010 - Abatement Notice	Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Wataroa Road, Pungarehu. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 17 March 2023. Further enforcement is being considered.

1 Mar 2023	332123-099 ENF-23841	Annual Inspection	Significant non-compliance	Francis Mullan (2715) Gareth Mullan (30747)	R2/2966-2.1	EAC-25002 - Abatement Notice	Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Kina Road, Oaonui. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection found that the abatement notice and resource consent conditions were being complied with at the time of inspection. Further enforcement action is being considered.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
2 Mar 2023	332123-109 ENF-23844	Annual Inspection	Significant non-compliance	Estate WA Williams (1990)	R2/1680-4.0	EAC-25011 - Abatement Notice	Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Newall Road, Okato. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 24 March 2023. Further enforcement action is being considered.							
2 Mar 2023	332123-108 ENF-23850	Annual Inspection	Non-compliance	Irene Phillips (69381)	R2/3239-3.0	EAC-25020 - Abatement Notice	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Upper Newall Road, Newall. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection will be undertaken after 14 April 2023.							
2 Mar 2023	332123-100 ENF-23842	Annual Inspection	Non-compliance	Allan George Davies & Pamela Ann Davies (1983) Beamo Farms Limited (34672)	R2/1668-4.0	EAC-25009 - Abatement Notice EAC-25008 - Abatement Notice No Enforcement Action - Other	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Mangorei Road, New Plymouth. Abatement notices were issued requiring works to be undertaken to the farm dairy disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 20 March 2023.							



**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
7 Mar 2023	332123-126 ENF-23895	Annual Inspection	Non-compliance	Taylor Family Farms Trust (28814)	R2/2378-4.0		Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Alfred Road, Kaimiro. Enforcement action is being considered.							
8 Mar 2023	332123-103 ENF-23849	Annual Inspection	Significant non-compliance	AW Brocklehurst Trust (17144)	R2/0643-3.0	EAC-25019 - Abatement Notice	Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Bristol Road, Waitui. An abatement notice was issued requiring works to be undertaken to ensure compliance with resource consent conditions. Reinspection found that the abatement notice and resource consent were being complied with at the time of inspection. Further enforcement is being considered.							
8 Mar 2023	332123-131 ENF-23860	Follow Up Inspection	Non-compliance	Rocky Acres Trust (23569)	R2/1918-3.0		Investigation Continuing
<b>Comments:</b> During a follow up inspection, as part of the annual dairy inspection round, it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Waiteika Road, Opunake. Enforcement action is being considered.							
8 Mar 2023	332123-117 ENF-23861	Compliance Monitoring Insp.	Non-compliance	Christian Mahony (72215)	R2/10908-1.2		No Further Action/Costs Recovered
<b>Comments:</b> During a compliance monitoring inspection it was found that works were not within resource consent conditions at an earthworks site on Fitzgerald Lane, Hawera. The consent holder was made aware of the non-compliance and immediately undertook action to clean up the site to ensure consent compliance.							

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
9 Mar 2023	332123-110 ENF-23855	Annual Inspection	Non-compliance	Richard Walker (68549)	R2/3118-2	EAC-25025 - Abatement Notice	No Further Action At This Stage/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Omuturangi Road, Otakeho. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 31 March 2023.

9 Mar 2023	332123-101 ENF-23854	Annual Inspection	Non-compliance	Brent Stewart (14378)	R2/2859-3.0	EAC-25024 - Abatement Notice	No Further Action At This Stage/Costs Recovered
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Puneho Road, Okato. An abatement notice was issued requiring works to be undertaken to ensure compliance with Resource Consent 2859-3.0. Reinspection will be undertaken after 1 August 2023.

14 Mar 2023	332123-118 ENF-23859	Annual Inspection	Non-compliance	Nichoshanks Farm Limited (74179)	R2/1988-2		Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Allen Road, Hawera. Enforcement action is being considered.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
16 Mar 2023	332123-130 ENF-23898	Annual Inspection	Non-compliance	Denis James & Raewyn Edna Gladys Goodwin (2605)	R2/2628-3.0		Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions, and also in contravention of Abatement Notice EAC-24459, issued as a result of a previous non-compliance, at Goodwin Road, Okato. Enforcement action is being considered.							
16 Mar 2023	332123-111 ENF-23862	Annual Inspection	Non-compliance	Geoffrey Charles & Julianna Margaret Knowles (11014)	R2/0980-3	EAC-25037 - Abatement Notice	No Further Action At This Stage/Costs Recovered
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Main South Road, Pungarehu. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 31 March 2023.							
17 Mar 2023	332123-129 ENF-23899	Annual Inspection	Non-compliance	South Taranaki District Council (9623)	R2/2544-2		Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Mountain Road, Eltham. Enforcement action is being considered.							
17 Mar 2023	332123-121 ENF-23887	Compliance Monitoring Insp.	Non-compliance	Fletcher Concrete & Infrastructure Limited (24970)	R2/5026-2	EAC-25075 - Explanation Requested - Letter	Investigation Continuing
<b>Comments:</b> During routine monitoring it was found that a concrete batching site was not operating within resource consent conditions and in contravention of Abatement Notice-EAC-23386. The discharge from the site had a high suspended sediment load. A letter of explanation was requested. A follow up inspection and sampling will be undertaken. Further enforcement action is being considered.							

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
17 Mar 2023	332123-120 ENF-23886	Compliance Monitoring Insp.	Non-compliance	Taranaki Stock Car Club Inc (2299)	R2/2116-4.0	EAC-25074 - Explanation Requested - Letter	Investigation Continuing
<b>Comments:</b> During routine monitoring it was found that the site was not operating within resource consent conditions. The discharge from the site had a high suspended sediment load. A letter of explanation was requested. A follow up inspection and sampling will be undertaken.							
21 Mar 2023	332123-112 ENF-23871	Annual Inspection	Significant non-compliance	Multigrain Limited (51654)	R2/1958-3.0		Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions, and Abatement Notice EAC-24478 issued as a result of a previous non-compliance, at a property at Oeo Road, Auroa. Enforcement action is being considered.							
21 Mar 2023	332123-132 ENF-23900	Annual Inspection	Non-compliance	Seaward Dairies Limited (74653)	R2/6760-1		Investigation Continuing
<b>Comments:</b> During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions at Hampton Road, Okato. Enforcement action is being considered.							
21 Mar 2023	332123-104 ENF-23868	Compliance Monitoring Insp.	Non-compliance	Lorry Land Limited (24772)	R2/7965-1	EAC-25081 - Explanation Requested - Letter EAC-25045 - Abatement Notice	Investigation Continuing
<b>Comments:</b> During routine monitoring it was found that unauthorised materials (including fibreglass or asbestos, polystyrene and a calcium sulfonate complex grease tube) were being burnt in contravention of resource consent conditions, at a vehicle dismantler's site on Rugby Road, Tariki. An abatement notice was issued requiring unauthorised burning to cease. Reinspection will be undertaken after 27 March 2023. An explanation has been requested. Further enforcement action is being considered.							

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
22 Mar 2023	332123-105 ENF-23870	Annual Inspection	Non-compliance	Cameron Goodchap (50491) Double D Trust (17271) Ian Robert & Lynette Gail Diack (1970)	R2/2950-2	EAC-25050 - Explanation Requested - Letter EAC-25049 - Explanation Requested - Letter EAC-25048 - Abatement Notice EAC-25047 - Abatement Notice	Investigation Continuing

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Manaia Road, Kaponga. Abatement notices were issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 30 March 2023. Letters requesting explanation were sent. Further enforcement action is being considered.

22 Mar 2023	332123-114 ENF-23876	Annual Inspection	Non-compliance	Sean Luttrell (72219)	R2/2068-3.0	EAC-25064 - Abatement Notice	No Further Action At This Stage/Costs Recovered
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on South Road, Pihama. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 28 April 2023.

22 Mar 2023	332123-133 ENF-23901	Annual Inspection	Non-compliance	Peter Myers (2895)	R2/6154-2.0		Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Nopera Road, Pihama. Enforcement action is being considered.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
22 Mar 2023	332123-113 ENF-23874	Annual Inspection	Non-compliance	Brian Butler (69317)	R2/1770-4.0	EAC-25057 - Abatement Notice	No Further Action At This Stage/Costs Recovered

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Hoani Road, Okato. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 10 April 2023.

23 Mar 2023	332123-115 ENF-23883	Annual Inspection	Non-compliance	Jordan Farms Limited (50957)	R2/1924-3.0	EAC-25069 - Abatement Notice	No Further Action At This Stage/Costs Recovered
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Hill Road, Egmont Village. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 28 April 2023.

23 Mar 2023	332123-119 ENF-23875	Annual Inspection	Non-compliance	Murray Broadmore (2040)	R2/2358-4.0		Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Hill Road, Kaimiro. Enforcement action is being considered.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
23 Mar 2023	332123-122 ENF-23888	Compliance Monitoring Insp.	Non-compliance	Horizon Trust Management Limited (36890)	R2/7845-1.2		Investigation Continuing

**Comments:** During analysis of samples, taken during routine monitoring on 23 March 2023, it was found that the allowable suspended solids limit was contravened at a quarry site at Whenuku Road, Normanby. Enforcement action is being considered.

23 Mar 2023	332123-102 ENF-23872	Annual Inspection	Significant non-compliance	KJ & JK Foskin (10733) ME & MF Foskin Estate (2887)	R2/3087-2	EAC-25063 - Explanation Requested - Letter EAC-25056 - Abatement Notice	Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Manaia Road, Manaia. An abatement notice was issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 30 March 2023. A letter requesting explanation was sent. Further enforcement action is being considered.

29 Mar 2023	332123-116 ENF-23885	Annual Inspection	Significant non-compliance	Grahame John & Annette Lillian Hill (2844) Greg Hill (55389)	R2/3632-3.0	EAC-25077 - Explanation Requested - Letter EAC-25076 - Explanation Requested - Letter EAC-25073 - Abatement Notice EAC-25071 - Abatement Notice	Investigation Continuing
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**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Manaia Road, Manaia. Abatement notices were issued requiring works to be undertaken to the farm dairy effluent disposal system to ensure compliance with resource consent conditions. Reinspection will be undertaken after 14 April 2023. Letters requesting explanation were sent. Further enforcement action is being considered.

**Compliance Monitoring – Non-compliances for the period 18 Feb 2023 to 29 Mar 2023**

Inspection Date	Job Number IRIS ID	Inspection Type	Compliance Status	Alleged Responsible Party	Consent Number	Action Taken	Recommendation
29 Mar 2023	332123-134 ENF-23902	Annual Inspection	Non-compliance	Pukengahu Family Trust (34610)	R2/3804-3.0		Investigation Continuing

**Comments:** During the annual dairy inspection round it was found that the farm dairy effluent disposal system was not operating within resource consent conditions on Pukengahu Road, Stratford. Enforcement action is being considered.





**Date** 26 April 2023

**Subject:** **Regional LiDAR PGF/LINZ Project Update**

**Approved by:** D Harrison, Director - Operations  
S J Ruru, Chief Executive

**Document:** 3161232

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### **Purpose**

1. The purpose of this memorandum is to inform the Committee of the completion of the Regional LiDAR capture project for Taranaki.

### **Executive summary**

2. Land Information New Zealand – Toitū te Whenua (LINZ) administers Provincial Growth Funding on behalf of the Ministry of Business, Innovation, and Employment. A portion of this funding was made available to the Council.
3. The Council received significant co-funding commitment from each of the three Taranaki TAs (NPDC, SDC, & STDC) as well as a contribution from Auckland University.
4. In March 2021 the Taranaki Regional Council (the Council) contracted AAM NZ Ltd (AAM) to carry out the LiDAR data collection.
5. Taranaki was one of the last regions to be sign up to the PGF LiDAR scheme but was the first region to be 100% complete.
6. The PGF LiDAR project enabled LiDAR data to be collected that has already and will:
  - 6.1. significantly improve the ability to plan for natural disasters;
  - 6.2. ensure New Zealand has a nationally consistent LiDAR data set collected to LINZ standards (the LiDAR Base Specification<sup>1</sup>);
  - 6.3. ability to discover archaeological sites;
  - 6.4. enable better land management decisions through interpretation and analysis of the LiDAR data; and

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<sup>1</sup> "LiDAR Base Specification" means the PGF Version: New Zealand National Aerial LiDAR Base Specification (January 2020) found at the following website:  
<https://www.linz.govt.nz/data/linz-data/elevation-data>

6.5. contribute to regional economic development.

## Recommendations

That the Taranaki Regional Council:

- a) receives this agenda memorandum *Regional LiDAR PGF/LINZ Project*.

## Background

7. On 29 October 2018 the Regional Economic Development Minister, Shane Jones, and Land Information Minister, Eugenie Sage, announced that up to \$19 million co-funding from the Provincial Growth Fund (PGF) was available to help regions obtain a baseline elevation dataset. It was expected that this would deliver significant practical value and multiple uses over the coming decades to councils and regional industries.
8. LINZ is managing this initiative on behalf of the Ministry of Business, Innovation and Employment's Provincial Development Unit.
9. The aim of the PGF LiDAR elevation data capture project is to develop a consistent elevation dataset across most of New Zealand. The standard open-data products are a 1m gridded bare earth Digital Elevation Model, a 1m gridded Digital Surface Model, and the source data point cloud.
10. The captured data is now fully processed, hosted by LINZ, and is publically available.

## Discussion

11. High-quality elevation data provides the opportunity to accurately map and digitally recreate the physical world, both built and natural. It is a foundational data asset essential to decisions involving the physical world, with the potential to help drive regional economic growth and spur new investment across the country.
12. Elevation data is captured through Light Detection and Ranging (LiDAR), a technology that uses aircraft-mounted laser instruments to measure distances to features on the ground. The result is a highly accurate dataset measuring ground terrain and above-ground features such as buildings and vegetation.
13. Total project costs were agreed between the supplier and TRC at \$777,875 (this included most of the original RFT requirements and a number of additional requirements that were agreed after the initial contract was agreed). Contributions were agreed between the funding partners as follows:

PGF Contribution	49%
NPDC Contribution	28%
STDC Contribution	9%
TRC Contribution	6%
SDC Contribution	5%
Auckland University Contribution	3%

14. A public media statement was jointly released by LINZ and the Council on 22 Dec 2022. The statement was written to inform the public of the completion of the project and to encourage the Taranaki community to consider the opportunities that are available to them to apply the resulting LiDAR data in Taranaki.

### **Financial considerations—LTP/Annual Plan**

15. 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**

16. 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**

17. 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.

### **Community considerations**

18. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

### **Legal considerations**

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



**Date** 26 April 2023

**Subject:** **Riparian programme review**

**Approved by:** D Harrison, Director - Operations  
S J Ruru, Chief Executive

**Document:** 3163842

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### **Purpose**

1. The purpose of this memorandum is to present a report on the review of the Riparian programme and its findings to the Committee.

### **Executive summary**

2. Two significant rainfall events occurred between Opunake and Okato during the 2022 Waitangi and following weekend, causing the most damage in the Waitotaroa Catchment. The rainfall volume and intensity of 393 mm in 24 hours is comparable to the amount that the Hawkes Bay region recently received from cyclone Gabrielle where extensive damage resulted.
3. A review of the riparian programme was undertaken by Dr Reece Hill which included a range of parameters relating to the size of the event: the effects of riparian vegetation on the damage; the effects of climate change on future events; how the riparian programme is working to achieve a multitude of current and future policy objectives; and to ensure that best practices are being undertaken through quality advice and assistance. Dr Hill will be attending the committee meeting to present his report.
4. The key findings are that the rainfall event was a significant channel-forming event with a range between a 1 and 50 and greater than a 1 in 100-year event. However, throughout the whole catchment only 30% of the streambank samples received damage.
5. In general, there was a lower probability for erosion where riparian management had been implemented than where there was not. Most damage was on the main stem of the Waitotaroa Catchment with significantly less damage on the smaller tributaries that make up 75% of the total catchment length.
6. Damage to riparian planting samples was predominantly due to the significance of the event and lack of a developed root structure due to the plants' young age. However, there was still less erosion where planting was present than occurred under pasture. Old exotic trees inappropriately planted along the riverbanks also fell in causing additional damage.

7. Where the vegetation was well established in the upper reaches, there was less streambank erosion. However, some of the inappropriate flax plantings in the mid to lower reaches also detached which contributed to culvert blockages that were generally undersized to cope with flood flows.
8. Overall, the riparian management programme is world leading in scale and achievement under a voluntary approach on private land. Regionally, and even after the Waitotaroa Catchment event, there is still a high acceptance of the multiple benefits that riparian management currently delivers to farmers and the environment.
9. The riparian management programme provides a proven foundation for creating and fostering relationships with landowners to help them achieve many of the current and future objectives/regulations under the NPS-FW and RMA. With further education and training to improve planting techniques and species selection, further improvements can be made to the efficacy of riparian margins with a particular emphasis on performance in typical 1 in 20-year flood event or greater. However, if climate change causes 1 in 20 year events to become more common, it is even more essential that riparian fencing and planting be implemented.

## Recommendations

That the Taranaki Regional Council:

- a) receives this agenda memorandum *Riparian Programme audit report*.
- b) notes the report's recommendations that Council already has in place

## Background

10. Taranaki Regional Council adopted its riparian management strategy in 1993. Since then, it has prepared around 3,000 riparian management plans covering 16,900 kms of streambank and implemented 6,000 kms of new fencing and planted 4,800 kms of streambank with over 7.6 million plants. As a result, 90% of all waterways are fenced and 81.7% have riparian vegetation where recommended.
11. Two significant rainfall events occurred between Opunake and Okato during the 2022 Waitangi and following weekend, causing the most damage in the Waitotaroa Catchment. The event was unique in that the entire length of the Waitotaroa catchment received similar amounts of rainfall simultaneously, rather than the typical pattern of higher volumes at higher altitude and vice versa. The rainfall volume and intensity of 393 mm in 24 hours is comparable to the amount that the Hawkes Bay region recently received from cyclone Gabrielle. Extensive damage occurred in Hawkes Bay after rainfall ranging from 320 mm to 450 mm was recorded over a 24-hour period.
12. A rainfall event of this significance (above the 90th percentile) inevitably results in channel reformation, which causes streambank erosion, debris deposition, culvert blockages and bridge damage. Consequently, constituents were concerned about whether the riparian planting through Council's riparian programme caused or exacerbated the effects on their farms. This triggered Council to undertake review of the riparian programme within the Waitotaroa Catchment.
13. The review was undertaken by Dr Reece Hill under the terms of reference provided by Council which included a range of parameters relating to the size of the event; the effects of riparian vegetation on the damage, the effects of climate change on future events; how the riparian programme is working to achieve a multitude of current and future policy

objectives and to ensure that best practices are being undertaken through quality advice and assistance. A statistically robust field assessment methodology was developed and undertaken with the data analysed and interpreted in the attached report.

14. The key findings are: that the rainfall event was a significant channel-forming event with a range between a 1 and 50 and greater than a 1 in 100 year event. The event caused erosion and damage to 30% of the streambank samples recorded throughout the whole catchment. In general, there was a lower probability for erosion where riparian management had been implemented than where there was not. The 30% of damaged samples recorded were predominantly on the main stem of the Waitotaroa Catchment. Smaller first and second order tributaries generally make up 70% of the catchment's total river length and there was less damage in these.
15. 17% of the riparian planting samples recorded damage (a higher proportion on the main stem), predominantly due to their immaturity and subsequent lack of a developed root structure. However, this is still less than the erosion that occurred under pasture, which provides virtually no root protection in such extreme events. Furthermore, 8% of the samples recorded obstructions and debris due to many existing, old exotic trees inappropriately planted along the riverbank - planted decades before the programme started- fell in without becoming detached; diverting flood flows and causing additional streambank erosion and deposition.
16. Where the vegetation was well established in the upper reaches, there was less streambank erosion. However, in the lower catchment where monocultures of flax had been planted (against the general recommendations of Council's advice), these sometimes detached, causing undersized culverts to block and crossings to overtop. This caused further scouring and damage to crossings.
17. Overall, the riparian management programme is world leading in scale and achievement under a voluntary approach on private land. Taranaki leads the country in riparian management implementation. Regionally, and in the Waitotaroa Catchment, there is a high acceptance of the multiple benefits that riparian management currently delivers to farmers and the environment.
18. The riparian management programme provides a proven foundation for creating and fostering relationships with landowners, which is essential for helping them achieve many of the current and future objectives/regulations under the *National Policy Statement for Freshwater Management 2020* (NPS-FW) and the *Resource Management Act 1991* (RMA). With further education and training to improve planting techniques and species selection, further improvements can be made to the efficacy of riparian margins during a typical 1 in 20-year flood event or even greater. However, if climate change causes 1 in 20 year events to become more common, it is even more essential that riparian management be in place. On the other hand, if channel-forming events of the magnitude that occurred in February occur more regularly with climate change, riparian planting may still provide more protection than without but is also highly dependent on trees getting a chance to mature and grow larger root systems to hold streambanks together. The chance to grow larger roots is also dependent on the probability of such an event re-occurring in the same catchment before this happens.

## Discussion

19. The report successfully addresses all of the criteria within the scope of the study and quantifies the effects of the event in relation to the significance of the event. Additionally, it also outlines the significance of what the riparian management

programme has achieved which is well documented through many existing Council reports. More importantly, the riparian programme is a key platform to help landowners and Council meet many of their regulatory requirements under the RMA and the NPS-FW. In particular, the stock exclusion rules under the RMA, which come into effect on 1 July 2023, and the introduction of Freshwater Farm Plans on 1 January 2025.

20. Land Management Officers are undertaking an audit of every riparian management plan over the next few years to ensure all waterbodies are captured and have the appropriate recommendations. Qualitative and quantitative information on the riparian fencing and vegetation will be obtained, along with whether inappropriate or ineffective fencing and planting is present. Landowners will be educated on the need to improve practices and ameliorate these situations. The Land Management Team will continue to train and mentor staff to ensure that quality advice and information is provided to landowners and that this results in effective riparian management.
21. The review provided several recommendations and the current status of each is provided. "Expand the provision of riparian plans to all rural landowners": Currently, around 3000 riparian plans are in place with virtually 100% of all dairy farms included. Run-offs and larger dry stock farms within the ring plain are also captured. There are around 226 properties between 10 and 20 hectares without a plan. Council is currently preparing about 30 new plans a year and targeting the larger properties over 20 hectares of which there are around another 200. The focus since 2009 has been on implementation of the intensively farmed properties which is where the best gains are to be made when improving water quality. In 2025, Compulsory Fresh Water Farm Plans (FWFP) will be required for properties over 20 hectares. FWFP will be required to identify critical source areas (CSA) so that they can be addressed; along with requiring fencing and planting waterways. All current properties with riparian management plans will also eventually require FWFPs, which will then incorporate Council's riparian requirements.
22. "The implementation of riparian plans could be improved": The programme can refocus some of Land Management's service to ensure landowners receive good plant selection advice when plants are ordered and that the amount of onsite planting advice given is increased (note: some farmers break up their own flax plants and plant them under their own volition). The current auditing software has recently added functionality to record areas at risk of flooding so that follow up advice can be given.
23. "Consider wider riparian buffers and more flood tolerant sedges": The auditing function grades efficacy of riparian margins (including species) on the width of planting relative to the stream size and whether the fence is in an appropriate place out of the flood zone. Any adjustments farmers need to make will become actions to complete their riparian plans to Council's standard.
24. "Plant for shading on small tributaries": The riparian programme captures all waterways on a plan and not just the 1m wide type that the stock exclusion rules apply to. The appropriate species for shading eg. planting at least one side for shading, is already incorporated into the auditing function and is given as standard advice.
25. "Suggested adjustments to current practices": these are all generally standard practice and any advice around the new restrictions on works in or near waterways/wetland under the NPS-FW are already being delivered to landowners as site visits are made. This is an ongoing educational process for both Council staff and landowners as the government slowly provides guidance material for their interpretation. Farmer education on the effects of drainage activities on ecology is ongoing. Land Management Officers currently have a standard list of discussion topics that need to be covered at

each plan visit. There is a particular emphasis on activities regulated through the NPS-FW and its associated regulations.

### **Financial considerations—LTP/Annual Plan**

26. 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**

27. 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**

28. 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.

### **Community considerations**

29. This memorandum and the associated recommendations have considered the views of the community, interested and affected parties and those views have been recognised in the preparation of this memorandum.

### **Legal considerations**

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

### **Attachments**

31. Attachment 1: Frodo #3163849: A Review of the Taranaki Regional Council Riparian Programme



# A review of the Taranaki Regional Council Riparian Programme



**Prepared for:** Taranaki Regional Council

**Prepared by:** Reece Hill, Alistair Dunn and Francis Groenendijk

**Date:** March 2023

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## ACKNOWLEDGEMENTS

Thanks you to all the landowners in the Waitotoroa catchment for providing access to their land, and for valuable comments on the Riparian Management Programme. Thank you to all the Taranaki Regional Council science staff that provided background information for the report, the riparian management and GIS staff who assisted with the Waitotoroa catchment stream stability assessment and provided valuable comments on the Riparian Management Programme.

## EXECUTIVE SUMMARY

Following two significant rainfall events during the 2022 Waitangi and following weekend, western Taranaki experienced record high flows in rivers and streams. Worst hit was the coastal area between Opunake and Okato. Initial indications are that across the affected area the event had a probability of between a 2% and less than 1% AEP or constituted a 1 in 50 to greater than a 1 in 100 year event. Following the events, Council decided that an independent review of the riparian programme should be undertaken. This report outlines a review by Landsystems of the TRC riparian programme under the terms of references outlined below.

The review comprises three main components: a review of relevant literature, a field assessment of riparian planting and damage in the Waitotoroa catchment, and interviews with TRC staff and landowners.

### Key points

- The February 2022 rainfall events centered on the west side of Mount Taranaki causing extensive damage to waterways in the Waitotoroa catchment and nearby catchments.
  - The rainfall during these events was unique in character with rainfall similar for the length of the catchment from the headwaters at the base of the mountain to the coast.
  - Peak flows were unusually extreme in the lower catchments.
  - Of the projected climate changes the most relevant to the TRC riparian planting programme are increased rainfall, the increased occurrence of extreme rainfall events, and the impact of rainfall on discharges.
  - The role of riparian protection will become increasingly important with climate change.
  - The Riparian Management Programme is *non regulatory* which has been the key to its success to date.
  - To date, the Riparian Management Programme has resulted in the distribution of more than 7.6 million native plants to landowners, 89.7% of the waterways being fenced, and 81.1% of streambanks requiring vegetation being protected by plantings.
  - Since 1996, Taranaki Regional Council has been providing free, property-specific riparian management plans with guidance and advice on fencing and planting of waterways.
  - To date, 2,992 riparian plans covering 16,713 km of streambank have been provided.
-

- The main policy framework for national policies and rules in relation to stock exclusion and riparian planting are encompassed within the Essential Freshwater package.
- Te Mana o te Wai is part of the National Policy Statement for Freshwater Management and has been since 2014.
- The NPS-FM 2020 strengthens and clarifies Te Mana o te Wai by providing stronger direction on how Te Mana o te Wai should be applied when managing freshwater.
- Landowners have a good appreciation of the value of the Riparian Management Programme.
- The Waitotoroa catchment assessment identified 30% of samples had erosion and 17% of samples had vegetation damage.
- The number of samples with erosion or vegetation damage increased from the upper catchment to the lower catchment and was greater for the main branch than for tributaries.
- There was a lower probability of erosion for TRC treated samples than for untreated samples.
- Erosion and vegetation damage were greatest for vegetation heights up to 5 m, then generally decreased.
- Planted vegetation will provide greater protection as the plants establish and reach a height greater than 5 m.
- Erosion was greatest where no woody vegetation was present and likely decreased once vegetation widths were greater than 5 m.
- Increasing the vegetation (buffer) width is likely to provide greater protection against erosion and result in less vegetation damage as plants establish.
- Sedimentation was localised with only 6% of samples having sediment deposition.
- Only 8% of samples had obstructions and debris and was more common in the mid catchment.
- The proportion of samples with obstructions and debris were similar irrespective of whether samples were TRC treated or untreated, and lower for natural vegetation.
- The presence of culverts possibly increased the probability of erosion occurring.
- Fencing was close to 100% for TRC treated samples and more than double that of untreated samples. This highlights the important role the Riparian Management Programme plays in progressing stock exclusion from waterways in the region.
- Field observations identified reaches where a single species had been planted, rather than a mix of plants. Riparian margins consisting entirely of flax were most common, and flax was most commonly uprooted when planted close to the channel.
- Field observations identified critical source areas where riparian planting or fencing had not followed the contour of the land surrounding the channel.

- Field observations highlighted a number of situations where culverts were either in poor condition or slowing water flow during higher flows and creating localised erosion and sedimentation.
- Field observations identified collapsed large trees (predominantly macrocarpas and pines) blocking and diverting flow and causing debris build up and localised erosion.
- Field observations highlighted localised erosion around most bridges, often with evidence of debris (such as large logs) still present and most likely related to the February rainfall events.
- Landowners have a good appreciation of the value of the Riparian Management Programme.
- Landowners commented that the Council are good to work with and their support is appreciated.
- Landowner knowledge of the value of riparian planting is good but their understanding of the benefits for stream ecology is mixed.
- LMOs have good riparian management knowledge, supported by training and mentoring.

### Conclusions

The February rainfall event was unique in that rainfall intensity occurred across the catchment evenly, rather than rainfall intensity decreasing from the upper catchment to the lower catchment. This resulted in higher flows.

Based on long term records, the rainfall event was estimated to be a 1 in 50 to greater than a 1 in 100 year event. However, climate change predictions for the region and preliminary modelling that incorporated the event suggest that such rainfall events will become more common over the long term.

An event of the magnitude of the February rainfall event produces flows that will cause erosion and damage irrespective of whether there is or isn't riparian protection in place.

The greatest benefit of riparian protection (as provided by TRC's Riparian Management Programme) is during more frequent, moderate sized (1 in 10 to 1 in 20 year events) rainfall events where flows generally remain within channel banks.

Associated benefits of the TRC treated areas include fencing which prevents stock access, assisting with water quality improvements and meeting national policy and rule requirements.

Observed erosion and vegetation damage was greater in the mid and lower Waitotoroa catchment waterways.

The least erosion occurred under well-established vegetation, (i.e. primarily under natural vegetation).

There was some evidence to suggest TRC treatment areas experienced greater riparian vegetation damage than untreated reaches. This was most likely because of the greater number of younger plants in the TRC treated reaches.

Taranaki Regional Council's riparian planning (including the development and implementation of riparian management plans), through the Taranaki Riparian Management Programme is essential for meeting the national requirements set out in current national freshwater management policy.

Implementation of property specific riparian management plan works, primarily the selection and placement of plants, needs to be improved to help reduce actual and perceived negative impacts such as plant loss and streambank erosion and in-stream sedimentation. This is most important given the likely increased frequency of larger storm events.

Landowner interviews highlighted that in general there was a high level of satisfaction with the Riparian Management Programme, the interaction with LMOs and the support provided by Taranaki Regional Council.

Several landowners indicated frustration with losing plants during events and seeing their hard work and investment lost. This is a major current disincentive to continuing planting, despite the incentives provided by council.

Based on the field observations in the Waitotoroa catchment, implementation did not always align with the guidance provided by Riparian management plans.

Shorter return periods for larger flood events due to climate change is likely to increase the occurrence of channel erosion and damage plantings, especially if these events occur where plants are less than five years old.

The lack of an assessment of the Waitotoroa catchment prior to the February 2022 events makes it difficult to draw clear conclusions regarding the full extent of erosion and damage, and whether TRC treated areas exacerbated or reduced the extent of erosion and damage.

However, reduced erosion and damage observed for reaches with well-established riparian vegetation (primarily provided by the samples with natural vegetation), and the statistical analysis suggested that once established TRC treatment with planting will reduce erosion and damage for up to moderate flow events.

A priority going forward is the fencing and planting of tributaries to increase the buffering capacity of peak flows and provide greatest benefits to water quality and stream ecological habitat. Additionally, these areas are less likely to be impacted by peak flows during large events.

### Recommendations

Consideration could be given to expand the provision of Riparian Management Plans to all rural landowners that have waterways (and waterbodies) present. This would provide improved and

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continuous riparian management along all waterway reaches, with likely reduced bank erosion and vegetation damage.

The guidance provided by Taranaki Regional Council for plant selection and placement on waterways is sufficient to contribute to mitigation against future impacts of climate change, however, the implementation of the property specific farm plans could be improved.

Implementation of property specific riparian management plan works, primarily the selection and placement of plants and planting distance from waterways can be improved to minimise plant loss and streambank erosion.

Considerations should include wider riparian buffers to better follow the topography, and the use of smaller 'softer' plants such as native sedges (rather than flax and large woody species) closer to the waterway, especially on the more active reaches of larger waterways. The 3 m minimum buffer width should not be followed where a wider width is more appropriate for the topography or required for active reaches.

On smaller tributaries (which make up an around 75% of the waterway length in the region), shading of the water to minimise increased water temperature will become increasingly important with climate change. The comparatively lower flow velocities and narrower channel widths associated with tributaries means that when appropriate, flax can be used and is likely to provide sufficient bank stability and shading, with lower ongoing maintenance requirements.

Recent changes to national policy have led to the need for adjustments to TRC's implementation of the Riparian Management Programme. A general review of potential gaps and misalignments between national freshwater policy and TRC's implementation of the policy through its Riparian Management Plan is recommended.

Suggested adjustments to current practices include:

- Where possible, providing wider riparian buffers with mixed native species to allow the development of taller mixed species (similar to that of natural vegetation) to provide greater protection against erosion.
  - Planting near the waterway, especially in high energy reaches should be avoided to minimise vegetation damage and loss.
  - Planting and fencing should follow the contour of the surrounding land to minimise critical source areas near the waterway.
  - Straightening and realignment of channels should be avoided to minimise high energy reaches.
  - Stabilisation of eroded streambanks using 'soft' engineering techniques is favoured.
  - Planting and fencing of smaller tributaries should be encouraged to enhance stream ecology.
  - Regular maintenance of culverts and replacement of undersized culverts
-



- Retirement of wetland areas and retaining open tributary waterways as opposed to piping.
- Placement of large hard structure (such as bridges) on stable reaches, away from high energy reaches.

The landowner interviews undertaken as part of this review indicated that although there is a good general understanding of the benefits associated with the Riparian Management Programme, there is a lack of landowner understanding around stream ecology, especially the effects of land drainage on stream ecology, as well as new concepts incorporated in the National Policy Statement for Freshwater Management 2020 (NPS-FM).

Increased incorporation of these components into the Riparian Management Programme, through riparian management plans, in conjunction with focussed field days or workshops could be a way of increasing landowner awareness and understanding.

To ensure LMO skills are current and consistent across the team, LMOs that are new to the role should continue to have access to training courses and resources. Training is best considered on a case by case basis.



## 1 INTRODUCTION

Following two significant rainfall events during the 2022 Waitangi and following weekends, western Taranaki experienced record high flows in rivers and streams. Worst hit was the coastal area between Opunake and Okato. Initial indications were that, across the affected area, the event had a probability of about 2% and constituted a 1 in 50 to 1 in 100 year event.

The very large flows caused widespread streambank erosion in the area, including undermining and washing away of vegetation that occupied the eroded banks. This ranged from large trees to small shrubs and flaxes, including riparian vegetation planted under the Council riparian programme. Many culverts and bridges were also damaged by the flood flows. Some damage was made worse by vegetation blocking culverts and channels and deflecting flows. It was typical of the type of damage that has been seen in other parts of the country when such rare events unfold.

After the event, and in response to questions raised by constituents, some councillors expressed concern about the way in which riparian planting has been undertaken in the Taranaki region and whether it was being completed in accordance with good practice standards. Constituents asserted that the riparian planting practices used by Council exacerbated the level of flood damage caused by the February 2022 events and that there was a need for the Council to change its current practices. By its very nature riparian planting involves undertaking plantings close to a river and/or waterway environment which inevitably carries with it a level of risk (e.g. losing younger plants before establishment, collapsing large exotic trees, and debris in the water channel), particularly during times of heavy rainfall and flooding. The question that arises, however, is whether the benefits generated by riparian planting programmes justify the level of risk associated with such planting and whether there are alternative risk mitigation measures which should be considered.

Against the above background the Council decided, at its meeting on 21 February 2022, that an independent review of the riparian programme should be undertaken.

This report outlines a review undertaken by Landsystems of Taranaki Regional Council's riparian programme under the terms of references provided.

## 2 PURPOSE

The Taranaki Regional Council (TRC) sought an independent review of the effects of the February 2022 storm events and the effectiveness of its riparian planting in the Waitoteroa catchment. The review would have regard to 'good practice', relevant legislative and/or national and regional policy requirements where relevant and undertake an assessment of the TRC's current practices in these areas.

## 3 SCOPE OF REVIEW

The review scope as provide to Landsystems by TRC were to provide:

An overview of the storm events that affected the Taranaki region between 4 February and 14 February. As such it should assess the size of the event, the expected frequency of such an event occurring and how these factors might be expected to change in the future given the impact of climate change.



An overview of the damage resulting from the storm event including consideration of specific examples where damage was clearly exacerbated by vegetation. It should comment on the likely source of that vegetation where possible.

An evaluation of the extent to which the reviewer considers the level of damage incurred to be consistent (or not) with an event of the size that occurred.

An outline of the role of riparian planting programmes operated by the TRC including the reasons for doing it and the benefits that it is expected to generate including, but not limited to, water quality, biodiversity values, carbon sequestration, flood mitigation, erosion mitigation, farm management, animal welfare and landscape amenity values.

An outline of what is considered to be good practice in relation to riparian planting programmes when conducted within a region such as Taranaki.

An outline of national and regional policy and rules in relation to stock exclusion and riparian planting and the way in which these requirements are being implemented.

An assessment of the extent to which historical and current riparian planting practices used by the TRC are consistent with good practice (and relevant legislation, national and regional policies) that applied at the time that they were undertaken. The assessment should include consideration of how the TRC assesses the local environment within which riparian planting is to be undertaken. This should include, for example, how it assesses the level of water flow that might occur within a particular waterway and how provision is made for flood events.

Comment on how the TRC is making an allowance for the impacts of climate change in its riparian planting programmes.

How the risks posed by undertaking planting in close proximity to waterways might be balanced with the benefits that such planting can deliver.

An audit of a sample of riparian plantings in Taranaki, including location and species choice, in relation to how they might affect stream flows; and whether the planting practice has changed over time.

A review of current planting practice, and LMO training and understanding of the effect of riparian on stream flows.

An understanding of landowner attitudes toward riparian planting and the effect that might have on planting practice.

An overview of the risks/disadvantages resulting from riparian vegetation, including but not limited to flood risk; weed/pest refuge; access.

An outline of any recommended changes that should be made to riparian programme development and management within the Taranaki region.



## 4 OVERVIEW OF TRC RIPARIAN REVIEW

The review comprises three main components: a review of relevant literature, a field assessment of riparian planting and damage in the Waitotoroa catchment, and interviews with TRC staff and landowners. The findings of the review are compiled in this report.

### 4.1 LITERATURE

- An overview of the storm events that affected the Taranaki region between 4 February and 14 February; the size of the event, the expected frequency of such an event occurring and how these factors might be expected to change in the future given the impact of climate change.
- Commentary on how the Council assesses the local environment within which riparian planting is to be undertaken, particularly in relation to water flows and flood events.
- An outline of the role of riparian planting programmes operated by Council including the reasons for doing it and the benefits that it is expected to generate.
- An outline of good practice in relation to riparian planting programmes when conducted within a region such as Taranaki.
- An outline of national and regional policies and rules in relation to stock exclusion and riparian planting and the way in which these requirements are being implemented.
- An assessment of the extent to which historical and current riparian planting practices used by Council are consistent with good practice.
- Commentary on the risks/disadvantages resulting from riparian vegetation, including but not limited to flood risk, weed/pest refuge, and access.

### 4.2 FIELD ASSESSMENT

- An overview of the damage to the Waitotoroa Stream resulting from the storm event including consideration of specific examples where damage was clearly exacerbated by vegetation.
- A summary of the field data for the Waitotoroa Stream, and an interpretation of the damage observed.
- Commentary on the risks posed by undertaking planting in close proximity to waterways might be balanced with the benefits that such planting can deliver.
- An audit of a sample of riparian plantings in Taranaki, including location and species choice, in relation to how they might affect stream flows; and whether the planting practice has changed over time.

### 4.3 INTERVIEWS

- Commentary on how the Council is making an allowance for the impacts of climate change in its riparian planting programmes.
- Commentary on current planting practice, and Land Management Officer (LMO) training and understanding of the effect of riparian on stream flows.
- Commentary on landowner attitudes toward riparian planting and the effect that might have on planting practice.



#### 4.4 RECOMMENDATIONS

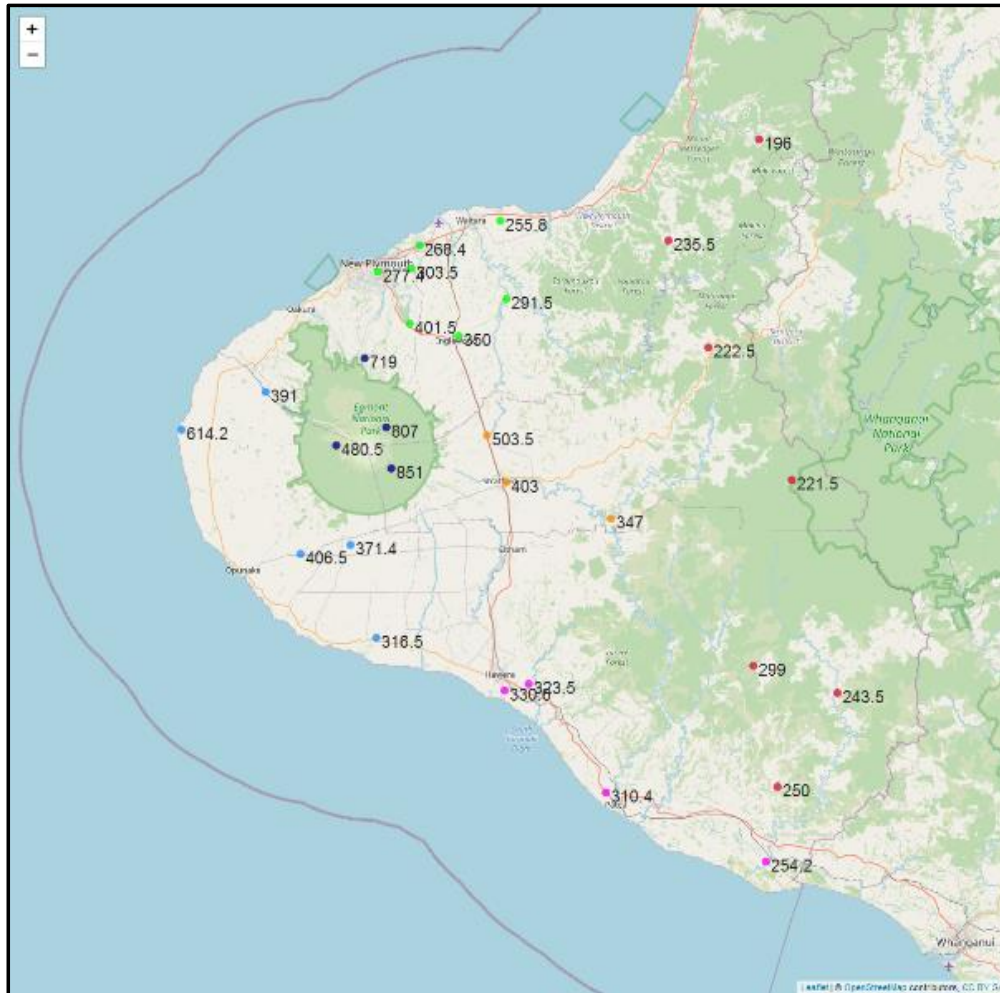
- An outline of any recommended changes that should be made to riparian programme development and management within the Taranaki region.

## 5 OVERVIEW OF STORM EVENT FEBRUARY 2022

### 5.1 EVENT CHARACTERISTICS

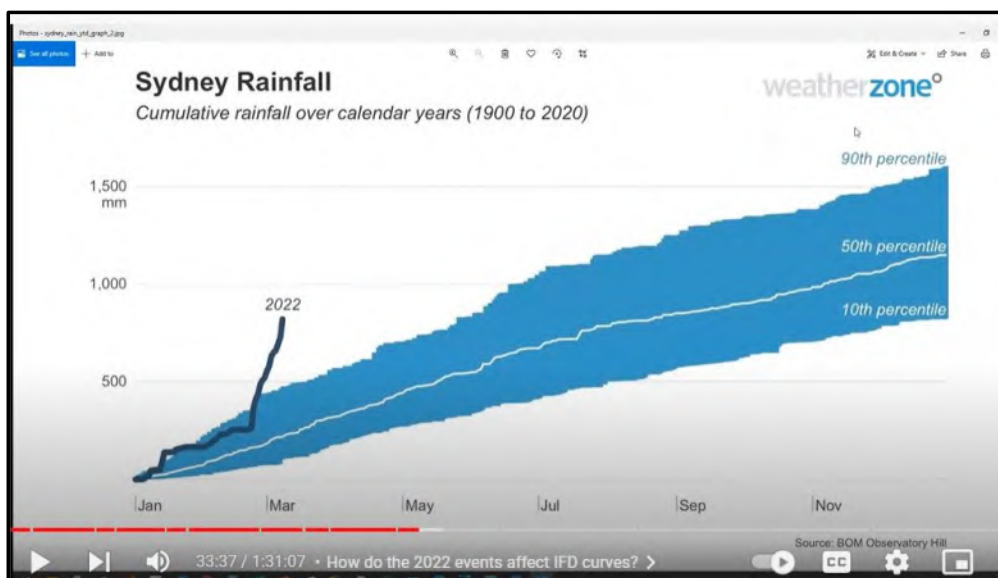
On the 6<sup>th</sup> of February 2022 and the week following large rainfall events centered on the west side of Mount Taranaki causing extensive damage to waterways in the Waitotoroa catchment and nearby catchments.

The rainfall during these events was unique in character with rainfall similar for the length of the catchment from the headwaters at the base of the mountain to the coast. Staff reports were that rainfall recorded at sea level (Lighthouse station) 393 mm in 24 hours compared with 192 mm on Mount Taranaki at Kahui Hut over the same period. As a consequence, peak flows were unusually extreme in the lower catchments. Regional comparative rainfall for the 4-14 February 2022 period indicated that the rainfall event was localised and centered on the western side of Mount Taranaki (**Figure 1**).



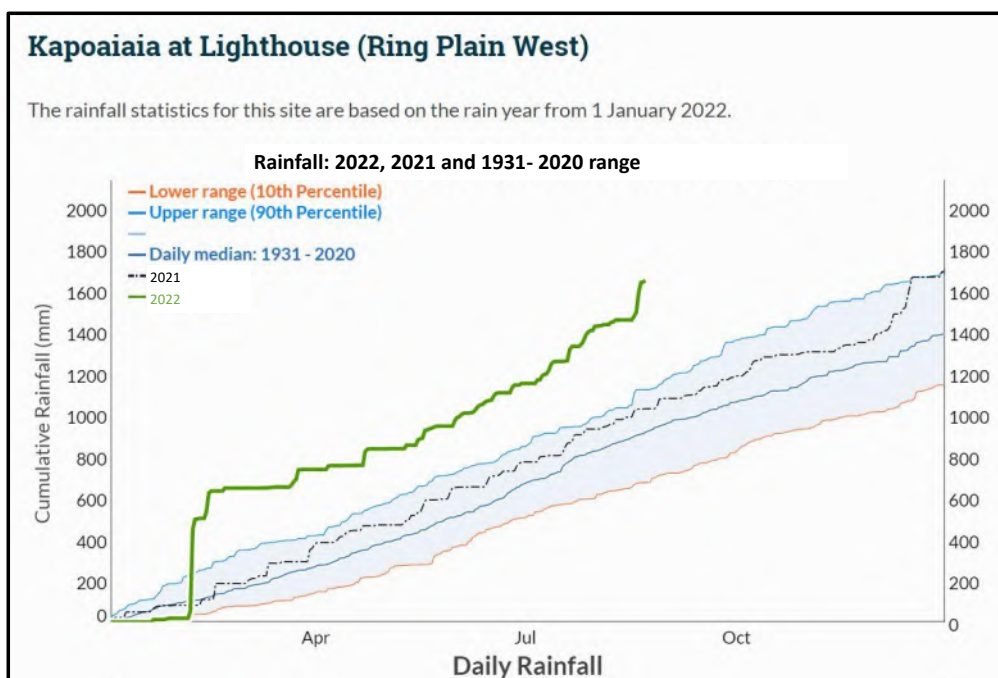
**Figure 1.** Rainfall at 30 sites throughout the Taranaki region for the period 4-14 February 2022 (provisional data).

The event was similar event to extreme event that caused flooding around Sydney, Australia in late February 2022. Long term records (1900 to 2020) for that region indicated that it was well outside of typical rainfall and well above the 90<sup>th</sup> percentile of rainfall previously recorded (**Figure 2**).



**Figure 2.** Sydney cumulative rainfall for 2022 following the storm event compared with the long-term cumulative rainfall 1900 to 2020.

Similarly for the Taranaki event, recorded rainfall indicates that the event produced rainfall well above the 90<sup>th</sup> percentile and was greater for the Lighthouse station on the coast than the Kahui Hut station in the mountain (Figure 3).



**Figure 3.** Kapoiaia (Lighthouse) station cumulative rainfall for 2022 following the storm event compared with the long-term cumulative rainfall 1931 to 2020.



The Waitotoroa catchment doesn't get mountain rain, so with the extreme coastal rain the flow increased the flows well outside the normal range for the whole length of the catchment.

Preliminary modelling by TRC staff indicated that the February event was outside the current model for estimating the return period of rainfall events. If the frequency of similar events increases (either as a result of climate change effects or otherwise), the result would be an adjustment of the current event return period as supported by the long-term rainfall data.

This raises the question of whether this magnitude and frequency of event will increase into the future, requiring a rethink of the need for greater catchment protection to reduce the impact of the resulting peak flows. Consideration of increased vegetation buffering capacity on the land within catchments is required. Buffering capacity can be improved through preservation and re-establishment of wetlands, retirement of steeper headwater land, and riparian buffers will play an increasingly important role.

## 5.2 DAMAGE OBSERVATIONS

TRC provided photos of the riparian damage taken soon after the storm event. The main effects noted included streambank erosion, vegetation damage, fallen large trees obstructing the waterway and debris on the streambanks.

Examples of bank erosion are shown in **Figure 4**, fallen large trees and in-stream debris (**Figure 5**), and on-bank deposited debris (**Figure 6**).



*Figure 4. Examples of bank erosion.*





**Figure 5.** Examples of fallen large trees and instream debris.



**Figure 6.** Examples of on-bank deposited debris

These observations help guide the range of attributes assessed in the Waitotoroa Catchment Stream Stability Assessment in Section 9 of this report.



### 5.3 KEY POINTS

- The February 2022 rainfall events centered on the west side of Mount Taranaki causing extensive damage to waterways in the Waitotoroa catchment and nearby catchments.
- The rainfall during these events was unique in character with rainfall similar for the length of the catchment from the headwaters at the base of the mountain to the coast.
- Peak flows were unusually extreme in the lower catchments.

## 6 CLIMATE CHANGE CONSIDERATIONS

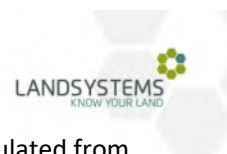
### 6.1 NIWA CLIMATE CHANGE REPORT

Taranaki Regional Council commissioned NIWA to undertake a review of climate change projections and impacts for the Taranaki region<sup>1</sup>. The report addressed the expected changes for a range of climate variables out to 2100 and drew heavily on climate model simulations from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Key findings of the report included:

- Annual average maximum and minimum temperatures are expected to increase.
- The average number of hot days is expected to increase.
- The average number of frost days is expected to decrease.
- Projected changes in rainfall show variability across Taranaki. Annually, rainfall is projected to increase for most of the region under both RCP4.5 and RCP8.5. By 2090, larger and more extensive changes to rainfall are projected at the seasonal scale. For some parts, winter increases of 8-22% (RCP8.5) and spring decreases of up to 6% (RCP4.5) are projected.
- Extreme, rare rainfall events are projected to become more severe in the future. Short duration extreme rainfall events (e.g. thunderstorms) have the largest relative increases compared with longer duration extreme rainfall events (e.g. ex-tropical low pressure systems).
- Annual average discharge<sup>2</sup> is projected to remain stable or slightly increase across both greenhouse gas concentration pathways and future time periods.
- Drought potential is projected to increase across Taranaki, with annual accumulated Potential Evapotranspiration Deficit (PED) totals increasing with time and increasing greenhouse gas concentrations. By 2040, PED totals are projected to increase by 25-90 mm. By 2090, PED totals are projected to increase by 25-90 mm (RCP4.5) or 30-110 mm (RCP8.5).
- One of the most certain consequences of increasing concentrations of atmospheric greenhouse gases and associated warming is the rising sea level. Rising sea level in past decades has already affected human activities and infrastructure in coastal areas in New Zealand, with a higher base mean sea level contributing to increased vulnerability to storms and tsunamis.

<sup>1</sup> Macara G, Woolley J-M, Sood A, Stuart S, Eager C, Zammit C, Wadhwa S. 2022. Climate change projections and impacts for Taranaki. NIWA Client Report 2022068WN.

<sup>2</sup> The term discharge refers to the volume of water which flows through a defined cross-section of a watercourse per unit of time.



- Rising sea level has already been observed in Taranaki. Absolute sea-level rise (SLR), calculated from satellite altimetry, shows the region is trending at an increase of around 4 mm/year (trend for 1993-present), which is close to the New Zealand-wide average of 4.4 mm/year (calculated up to the end of 2015). By 2090, sea-level rise of 0.5 m (RCP4.5) or 0.7 m (RCP8.5) is projected (relative to 1986-2005 baseline).

Of these projected changes the most relevant to the TRC riparian planting programme are increased rainfall, the increased occurrence of extreme rainfall events, and the impact of rainfall on discharges. All of these are likely to mean that riparian planting (and woody land cover in the catchment as a whole) will play an important role in reducing stream flows and discharges during rainfall events but will be under increased pressure from increased rainfall and extreme events.

Of less importance but still with an indirect impact on the TRC riparian programme are increased temperatures, increased incidence of drought and sea level rise.

Increased temperatures and incidence of drought will mean that stock will need access to drinking water. National legislation to fence streams and prohibiting stock access to streams will increase the requirement for reticulated water for stock.

Increased air temperatures are likely to result in increased stream water temperatures which impact on stream ecological condition, especially during periods of low flow. Riparian planting will play an important role in buffering stream water temperatures, especially in the headwaters and tributaries where stream waters are cooler and riparian vegetation can shade the width of the stream.

The main possible impact of sea level rise is likely to be changing the base level of the catchment scale fluvial system. Changes (up or down) of the lower catchment stream gradient can result in stream gradient adjustments upstream, with changes in the location of stream erosion and deposition. However, these adjustments are likely to be very gradual and difficult to predict or mitigate for.

The following points summarise ongoing and potential future impacts of a changing climate on different sectors and environments in Taranaki:

- A warmer atmosphere in the future is expected to result in increases to rainfall intensity. Increased rainfall intensity can cause soil saturation issues for the agricultural sector and will likely increase the demand for on land drainage to lower winter soil water tables on used pastoral land, especially lower in the catchment.
- Increased rainfall intensity increases the risk of flooding events which have associated adverse impacts such as damage to infrastructure and increased risk of land degradation resulting from landslides and soil erosion.

#### **6.1.1 Anticipated role of riparian protection**

The role of riparian protection will become increasingly important with climate change. The main anticipated benefits of riparian planting are:

- Providing streambank protection to reduce sediment loss to waterways during more frequent flow events.



- Providing streambank protection to reduce channel migration and loss of productive land and infrastructure during more frequent flow events.
- Providing shading to buffer stream water temperatures and lessen impacts on instream ecological habitat.

## 6.2 KEY POINTS

- Of the projected climate changes the most relevant to the TRC riparian planting programme are increased rainfall, the increased occurrence of extreme rainfall events, and the impact of rainfall on discharges.
- The role of riparian protection will become increasingly important with climate change.

# 7 OVERVIEW OF TRC RIPARIAN MANAGEMENT PROGRAMME

## 7.1 PROGRESS TO DATE

Taranaki's Riparian Management Programme is believed to be the largest and longest-running environmental enhancement planting scheme on private land in New Zealand. It is transforming the Taranaki ring plain and has been recognised with a Green Ribbon Award from the Ministry for the Environment, and awards from the Geospatial World Forum and the NZ Resource Management Law Association.

Under the Council's Riparian Management Programme, thousands of kilometres of streambanks and wetlands have been and continue to be fenced and planted to protect and enhance the region's waterways. Based on 2022 data<sup>3</sup>:

- More than 7.6 million native plants have been supplied to landowners since the programme began in 1996.
- 99.5% of Taranaki's 1600 dairy farms have riparian plans. Across the whole region, there are about 2,992 plans covering 16,713 km of streambank.
- As at the end of 2022, a total of 89.7% of the waterways were fenced and 81.1% of streambanks that required vegetation were protected by plantings.

The Riparian Management Programme is *non regulatory* which has been the key to its success to date. The Industry Clean Stream Accord (now Sustainable Dairying: Water Accord) came out 2013/2014<sup>4</sup>. At that time, TRC made use of this industry push (through its LMO team) as incentive for farmers to fence and plant their waterways with 2020 as a suggested goal date. The Taranaki Natural resources Plan (due in 2024) will include a compulsory riparian planting requirement on intensively farmed properties with a planned roll out by the end of 2024. In the interim, the National Environmental Standard for Stock Exclusion requires the exclusion of stock from waterways from the 1st of July 2023<sup>5</sup>.

<sup>3</sup> 2022 data provided by TRC staff.

<sup>4</sup> <https://www.dairynz.co.nz/environment/environmental-leadership/sustainable-dairying-water-accord/>

<sup>5</sup> Note that the stock exclusion does not necessarily require fencing.





## 7.2 RIPARIAN MANAGEMENT BENEFITS

Riparian buffer zones are used as a management tool to perform many functions. Functions include stabilising channels, preventing stock access to waterways, filtering sediment and other particulates (including nutrients and microbes attached to sediment), removing soluble nutrients, and providing terrestrial and aquatic habitat.

Wetter soils in riparian areas can promote a significant loss of N through denitrification. Riparian vegetation also provides corridors for the movement of native fauna and flora between geographically separate areas, although the spread of weed species can be facilitated in this way too.

A summary of riparian zone functions that potentially buffer water bodies from various land-use effects is provided in **Figure 7**.

Riparian zone function	Potential in-stream effects
<ul style="list-style-type: none"> <li>• Buffers banks from erosion</li> <li>• Buffers channels from localised changes in morphology</li> <li>• Excludes livestock, and their trampling, dung and urine</li> <li>• Buffers input of nutrients, soil, microbes and pesticides in overland flow</li> <li>• Denitrifies groundwater</li> <li>• Buffers energy inputs, especially through shading</li> <li>• Provides in-stream food supplies and habitat for aquatic invertebrates, native fish and salmonids</li> <li>• Buffers flood flows</li> <li>• Maintains microclimate</li> <li>• Provides habitat and corridors for birds, terrestrial wildlife, but also weeds</li> <li>• Provides for recreational, cultural, aesthetic and landscape values</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces fine sediment levels</li> <li>• Maintains water clarity</li> <li>• Reduces contaminant loads</li> <li>• Prevents nuisance plant growths</li> <li>• Encourages growth of bryophytes and thin periphyton films</li> <li>• Maintains lower summer maximum temperatures</li> <li>• Increases in-stream habitat features and terrestrial carbon inputs, including leaves and woody debris</li> <li>• Maintains food webs</li> <li>• Reduces flood-flow effects</li> <li>• Increases biodiversity</li> <li>• Allows in-stream uses such as contact recreation and mahinga kai food gathering</li> </ul>

**Figure 7.** Summary of riparian zone functions that potentially buffer water bodies from various land-use effects (from Fenemor and Samarasinghe, 2020)<sup>6</sup>.

Estimates suggest that up to 85% of coarse sediment, and slightly lesser amounts of total N and P can be removed by riparian buffers, although their efficacy depends on riparian buffer width, surrounding slopes and vegetation density<sup>7</sup>. Generally, a riparian buffer will be most effective when it is well vegetated, occupies greater than 10% of the surrounding slope length, slopes are less than 11 degrees, and the soils are free draining.

<sup>6</sup> Fenemor A, Samarasinghe O. 2020. Riparian setback distances from water bodies for high-risk land uses and activities. Envirolink Grant: 2057-TSDC167. Contract Report: LC3832. Manaaki Whenua Landcare Research.

<sup>7</sup> McKergow L, Matheson, F, Goeller, B, Woodward, B. 2022. Riparian buffer design guide, Water quality design and performance estimates. Design and performance estimates. NIWA, Hamilton, New Zealand.



### 7.3 RIPARIAN MANAGEMENT PLANS

Since 1996, Taranaki Regional Council has been providing free, property-specific riparian management plans with guidance and advice on fencing and planting of waterways.

Plans include aerial mapping, with existing and proposed fencing and planting marked, a summary of suitable plant types and cost calculations. Support is provided by the Council's Land Management Officers (LMOs) through one-on-one advice about the implementation of plans. LMOs will also co-ordinate contractors to undertake fencing and planting if required. Through this process, TRC provide assistance and clear guidance on how to successfully manage riparian zones and develop and implement a riparian plan.

Riparian Management Plans are generally only provided for farmers, or landowners with rural productive land. When a farmer requests a Riparian Management Plan, the property is mapped by a LMO and usually followed by a meeting and recommendations.

Once the map has been completed it is sent out to the landowner accompanied by a number of factsheets. The factsheets cover all subjects from fencing, planting, maintaining riparian vegetation, maintaining channels and floodplains etc.

Most dairy plan holders are visited annually and requested by their LMO to monitor their progress and update their GIS data. Support, recommendations for future works/planting and plant sales are covered at this point. TRC provides farmers with two options to purchase plants, either directly through their LMO, or a website link which farmers can access any time of the year.

### 7.4 KEY POINTS

- The Riparian Management Programme is *non regulatory* which has been the key to its success to date.
- To date, the Riparian Management Programme has resulted in the distribution of more than 7.6 million native plants to landowners, 89.7% of the waterways being fenced, and 81.1% of streambanks requiring vegetation being protected by plantings.
- Since 1996, Taranaki Regional Council has been providing free, property-specific riparian management plans with guidance and advice on fencing and planting of waterways.
- To date, 2,992 riparian plans covering 16,713 km of streambank have been provided.

## 8 POLICY FRAMEWORKS AND IMPLEMENTATION

The restoration and preservation of riparian margins is a major focus of regional authorities who are tasked with the integrated management of New Zealand's natural and physical resources under the Resource Management Act (Resource Management Act, 1991; Ministry for Primary Industries, 2016).



## 8.1 NATIONAL POLICY

### 8.1.1 Essential Freshwater package

The main policy framework for national policies and rules in relation to stock exclusion and riparian planting are encompassed within the Essential Freshwater package<sup>8</sup>.

The Essential Freshwater package is part of a new national direction to protect and improve our rivers, streams, lakes and wetlands. The Essential Freshwater package aims to:

- stop further degradation of our freshwater.
- start making immediate improvements so water quality improves within five years, and
- reverse past damage to bring our waterways and ecosystems to a healthy state within a generation.

The package includes a number of new pieces of law including:

- new National Environmental Standards for Freshwater (NES)<sup>9</sup>,
- new stock exclusion regulations<sup>10</sup>,
- amendments to the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010<sup>11</sup>,
- the National Policy Statement for Freshwater Management 2020 (NPS-FM 2020)<sup>12</sup>, which replaces the NPS-FM 2017,
- amendments to the RMA to provide for a faster freshwater planning process<sup>13</sup>,
- amendments to the RMA to enable mandatory and enforceable freshwater farm plans, and the creation of regulations for reporting nitrogen fertiliser sales<sup>14</sup>.

A suite of regulations is proposed under the Action for Healthy Waterways package where stock exclusion from wetlands, lakes and rivers more than one metre wide (bank to bank) will be mandatory with smaller water bodies (i.e. those less than 1 m) to be managed through farm specific freshwater farm plans (FW-FPs). A minimum setback distance of 3 m is required for all new fencing, and existing permanent fences can remain in place, even where setback distance is less than 3 m.

A key part of the National Policy Statement for Freshwater Management 2020 (NPS-FM) is the incorporation of cultural understandings and mātauranga Māori by empowering tangata whenua to be involved in the management and monitoring of wai Māori (freshwater).

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<sup>8</sup> <https://environment.govt.nz/assets/Publications/Files/essential-freshwater-overview-factsheet.pdf>

<sup>9</sup> <https://www.legislation.govt.nz/regulation/public/2020/0174/latest/LMS364099.html>

<sup>10</sup> <https://www.legislation.govt.nz/regulation/public/2020/0175/latest/whole.html>

<sup>11</sup> <https://www.legislation.govt.nz/regulation/public/2020/0176/latest/LMS351161.html>

<sup>12</sup> National Policy Statement for Freshwater Management 2020 – Amended December 2022:

<https://environment.govt.nz/publications/national-policy-statement-for-freshwater-management-2020-amended-december-2022/>

<sup>13</sup> <https://environment.govt.nz/assets/Publications/Files/a-new-freshwater-planning-process-technical-guidance-for-councils.pdf>

<sup>14</sup> <https://environment.govt.nz/acts-and-regulations/regulations/reporting-of-sales-of-fertiliser-containing-nitrogen-regulations/>



### 8.1.2 Te Mana o te Wai

Te Mana o te Wai refers to the vital importance of water. When managing freshwater, it ensures the health and well-being of the water is protected and human health needs are provided for before enabling other uses of water<sup>15</sup>.

Te Mana o te Wai is part of the National Policy Statement for Freshwater Management and has been since 2014. The NPS-FM 2020 strengthens and clarifies Te Mana o te Wai by providing stronger direction on how Te Mana o te Wai should be applied when managing freshwater.

Te Mana o te Wai informs how the NPS-FM 2020 is implemented through imposing a hierarchy of obligations:

1. the health and well-being of water,
2. the health needs of people (such as drinking water), and
3. the ability of people and communities to provide for their social, economic and cultural well-being.

Six principles of Te Mana o te Wai in the NPS-FM 2020 inform its implementation:

1. Mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater,
2. Kaitiakitanga: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations,
3. Manaakitanga: the process by which tangata whenua show respect, generosity, and care for freshwater and for others,
4. Governance: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future,
5. Stewardship: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations,
6. Care and respect: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

## 8.2 OTHER INDUSTRY LED INITIATIVES

There have been several industry-led initiatives to promote stock exclusion from waterways and riparian restoration, most notably the Dairying and Clean Streams Accord (2002 – 2012) (Fonterra et al., 2003) which transitioned into the Sustainable Dairying Water Accord (2013 – 2018) (DairyNZ, 2015). This pan-sector initiative set out to deliver sustainable improvements in New Zealand's water quality outcomes by enhancing dairy farm performance through the promotion of good management practices. Key objectives in relation to riparian buffer and waterway management included:

- exclusion of dairy cattle from qualifying waterways (wider than “a stride” and deeper than “ankle depth”), all lakes and significant wetlands (exclusion from 100% of the length of waterways on dairy farms by 31 May 2017),

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<sup>15</sup> <https://environment.govt.nz/assets/Publications/Files/essential-freshwater-te-mana-o-te-wai-factsheet.pdf>





- use of bridges or culverts for regular waterway crossings (100% of crossings to be bridged or culverted by 31 May 2018), and
- preparation of riparian management plans to identify future areas for riparian planting (100% of dairy farms to have a plan by 31 May 2020 and all planting to be completed by 31 May 2030).

At the conclusion of the programme (2017/18 reporting period), these objectives were purported to have been largely met for the 11,079 dairy farms covered by the accord process with stock permanently excluded from 98% of accord waterways, 100% of stock crossing points bridged or culverted and riparian management plans developed for 52% of dairy farms with waterways<sup>16</sup>.

The Sustainable Dairying Water Accord has transitioned to the 'Dairy Tomorrow Strategy' which contains several environmental commitments including leading efforts to further improve water quality and enhance biodiversity<sup>17</sup>.

### 8.3 KEY POINTS

- The main policy framework for national policies and rules in relation to stock exclusion and riparian planting are encompassed within the Essential Freshwater package.
- Te Mana o te Wai is part of the National Policy Statement for Freshwater Management and has been since 2014.
- The NPS-FM 2020 strengthens and clarifies Te Mana o te Wai by providing stronger direction on how Te Mana o te Wai should be applied when managing freshwater.

## 9 WAITOTOROA CATCHMENT STREAM STABILITY ASSESSMENT

### 9.1 INTRODUCTION

Landowner reports to Council indicated severe riparian related damage following a recent storm event. Reports suggest that this damage was the result of TRC riparian planting.

As part of the TRC riparian programme review, a field assessment of the Waitotoroa Stream main channel and immediate tributary riparian plantings was undertaken in August 2022, approximately 6 months following the February storm events.

The main purpose of the assessment was to identify and characterise the areas and types of damage resulting from the February storm events, identify the effectiveness of the TRC riparian plantings compared with no-treated riparian areas, and ascertain whether TRC riparian planted areas exacerbate stream bank instability (i.e. decrease bank stability). As part of the assessment the following questions were addressed:

<sup>16</sup> DairyNZ 2018. Sustainable Dairying Water Accord: 5 Years on. Dairy New Zealand (DairyNZ). DairyNZ publication 40-013. <https://www.dairynz.co.nz/publications/dairy-industry/sustainable-dairying-water-accord-five-years-on-report/> [accessed February 2023].

<sup>17</sup> Dairy Tomorrow 2017. Dairy tomorrow: the future of New Zealand dairying. <https://www.dairytomorrow.co.nz/wp-content/uploads/2017/12/dairy-strategy-2017-A4-booklet-Part3.pdf> [accessed February 2023].



1. Do TRC riparian planted areas increase or decrease bank stability, compared with non-riparian planted areas, as indicated by the presence of streambank erosion and deposition?
2. Do TRC riparian planted areas increase or decrease bank stability, compared with non-riparian planted woody areas, as indicated by the presence of streambank erosion and deposition?
3. Are there other factors contributing to decreased stream bank stability, other than the type of riparian vegetation?

The field assessment method was developed in consultation with Dr Douglas Hicks (retired soil conservation consultant) and where possible adopted methods used for previous assessments.

It is important to note that the assessment was not immediately following the storm event, assumptions had to be made regarding what erosion and vegetation changes could be attributed to the event and changes that had occurred following the event. Additionally, there was no baseline assessment to make a before and after comparison on observed changes.

## 9.2 SURVEY DESIGN

The Waitotoroa Stream main branch is estimated to be 24.5 km in length (approximately 60 km including tributaries). Surveying the entire main branch and immediate tributaries is resource prohibitive. For this reason a sampling approach was used.

To minimise bias, random 100 m lengths of main branch and immediate tributary streams were selected throughout the Waitotoroa catchment and assessment points (samples) at 2 m spacings along each length were assessed.

Sites were stratified by:

- Catchment position (upper, mid, lower)
- Waterway size (main branch, tributary)
- Treatment (TRC treated, untreated)
- Vegetation type (TRC treatment, Non-TRC treatment planted, Pasture, Natural woody vegetation)

Due to the availability of the different combinations of variables, an uneven sample design was used. In general terms, a minimum number of points were weighted across treatment type (TRC treated/untreated, main branch/tributary, and catchment position (high/mid/lower catchment).

Following consultation with Dr Douglas Hicks, random locations, weighted across the catchment were identified and at every location, variables and changes were assessed at sample points two metres (2 m) apart for a reach length of 100 m on both the true right and true left banks (200 m bank length). In total 67 reaches of 100 m were sampled, providing a total sample size of 6700. This provided a dataset of adequate size for the analyses.

### 9.2.1 Sample site selection

A GIS was used to create a base Waitotoroa stream (main branch and immediate tributaries) layer for locating potential sites. Spatial intersections of the Waitotoroa stream (main branch and immediate tributaries) layer with other TRC available spatial layers was used to assign attributes to stream reaches.



The following attributes were assigned:

- Landowner (for contact and access purposes only).
- Main branch/tributary (based on TRC available streams layer).
- TRC riparian planted (based on TRC riparian works layer).
- Non TRC riparian planted (based on TRC riparian works layer).
- Natural vegetation sites were identified using aerial photo interpretation.

Potential sites were identified by placing points spaced at 100 m along the Waitotoroa stream (main branch and immediate tributaries) layer. Each point was assigned a unique number (site number).

To minimise bias, a 100 m spatial grid overlay, provided by TRC GIS staff, was placed over the main branch and immediate tributaries of the Waitotoroa catchment and random allocated start points for each 100 m assessment length selected.

Potential valid points were identified as those points having the same treatment until the next downstream point.

Confirmation of the treatment was confirmed by air photo interpretation for each of the potential valid points. This was required because of the scale of the cover/use layer data available.

Once a site was confirmed as valid, the points were considered valid and included. For each treatment, valid points were selected and randomly ordered. This provided all possible valid points for each treatment, from which a sufficient number of points could be selected until the minimum sample size (number of sites) was sampled in the field.

Sites that were obviously modified were excluded. Sites that had been partially treated were excluded.

TRC riparian programme treated (planted and fenced) sites were identified using a completed riparian works GIS layer provided by TRC GIS staff.

Once potential sites had been located, individual landowners were contacted to confirm and arrange access.

For each site, field observations were collected and recorded either per site (for the site attributes) or for points along the site (for the point attributes).

For each 100 m assessment length, attributes were recorded at 2 m intervals for both true right and true left banks. These data were collated for the analyses.

### 9.2.2 Assessment variables

The assessment variables were selected to inform the analyses required to address questions/concerns raised. The field variables assessed can be separated into two groups. The first group of variables are referred to as the explanatory variables (e.g. catchment position, treatment, and vegetation type) and the second set of variables are referred to as the response variables (e.g. erosion, vegetation damage). Explanatory variables are those attributes that describe the site and the likely variables that may influence erosion and the damage from erosion effects. Response variables are those that describe the outcomes. The selected field variables are shown in **Table 1**.

**Table 1.** Assessment variables.

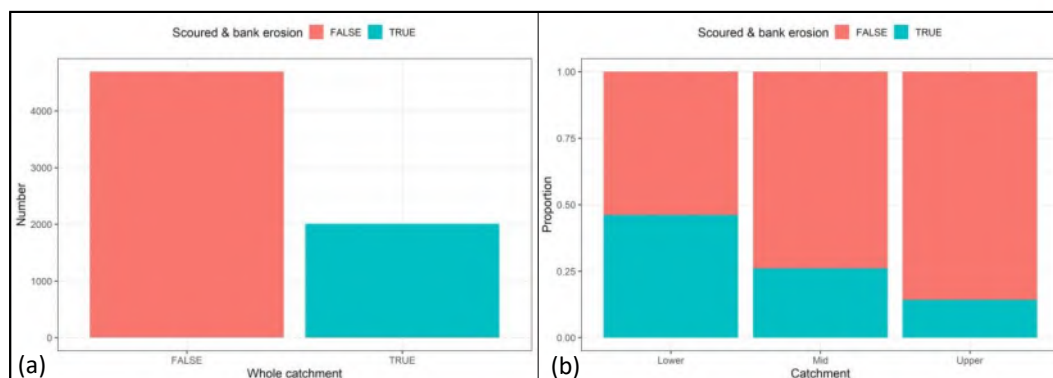
Assessment variable	Values	Grouped variable
Explanatory variables		
Catchment position	upper, mid, lower	None
Waterway classification	main branch, tributary	
Riparian treatment	TRC treated, untreated, natural/native	
Dominant vegetation type	pasture, mixed, planted, natural/native	
Height of riparian protection	Measurement in metres	
Width of riparian protection	Measurement in metres	
Fencing	fenced, unfenced	
Infrastructure	crossing, bridge, culvert	
Response variables		
Streambank stability and erosion	bank, scour, none	Erosion (Scoured and bank erosion)
Sedimentation	in-stream, on-bank, none	Sediment deposition (Sediment and buried)
Vegetation damage	uproot, damaged, none	Vegetation damage (Uprooted and damaged)
Vegetation debris	in-stream, on-bank, none	Obstructions and debris (Obstructed and debris)
In-stream obstructions	boulders, non-vegetation debris, none	Obstructions and debris (Obstructed and debris)

The combination of variables allowed for the comparison of the amount of erosion (bank and scour), vegetation damage (uproot and damage), sedimentation (in-stream and on-bank), debris (in-stream) and obstructions (in-stream) by catchment position, treatment and vegetation type to determine how explanatory variables may be affecting the probability of erosion and vegetation damage, and the presence of obstructions and debris.

### 9.3 STATISTICAL ANALYSIS

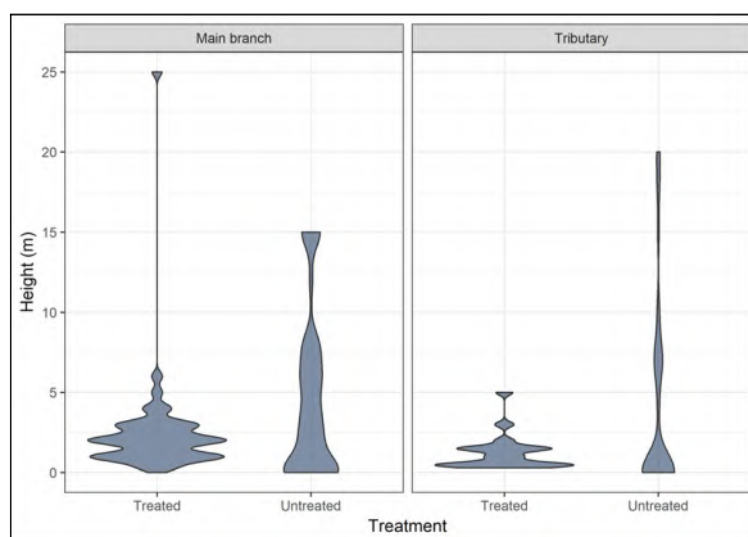
#### 9.3.1 Summary data

Summaries are presented as either frequency histograms, proportion plots or violin plots to show the of samples for assessed field variables. For all frequency histograms and proportion plots, “false” indicates that the response variable does not occur and “true” indicates that the response variable does occur. For frequency histograms, samples are presented as the number of “true” and “false” samples for the explanatory variable (**Figure 8 (a)**), and for proportion plots, as the proportion of “true” and “false” samples for the explanatory variable (**Figure 8 (b)**).



**Figure 8.** Frequency histogram and proportion plot examples.

For violin plots, the distribution of samples is shown for variables, with the number of samples for each value indicated by the width of the area for each variable represented. For example, in **Figure 9**, the vegetation height distribution for treated samples on the main branch ranges from 0 to 25 m, and most samples are between 0 and 5 m metres, as indicated by the wider plot area.



**Figure 9.** Violin plot example – vegetation height distribution for treated and untreated sites on the main branch and tributaries.

Collectively, these plots are useful for comparing the state of response variables relative to the explanatory variables. The summary data presented are limited to general comparisons and the focus is on trends, patterns and proportions. In many situations, small differences between data will not be statistically significant and indicative of trend only.

### 9.3.2 Regression analysis

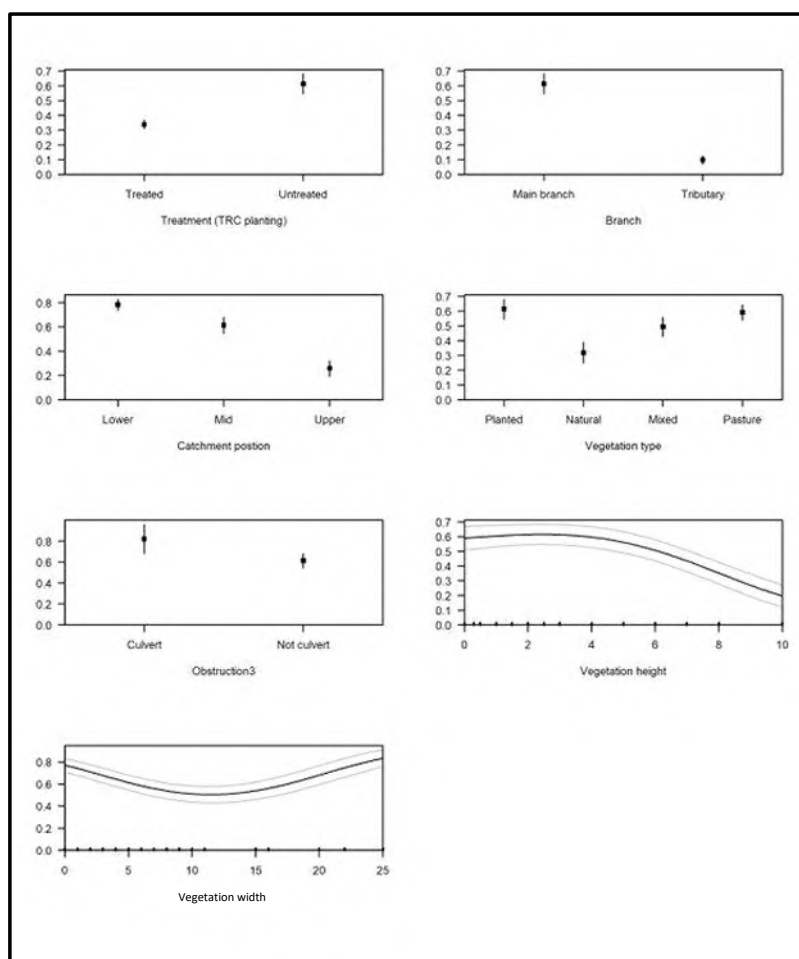
A logistic regression analysis was used to confirm patterns and trends identified in the summary data and provide additional quantification of the factors affecting the probability that a site has erosion (e.g. bank and



scour) or vegetation damage (e.g. damage and uprooting) in relation to explanatory variables (e.g. treatment, fencing, riparian vegetation height and width, catchment position, vegetation type). Initially, a preliminary logistic general linear model (GLM) was first applied to determine the main explanatory variables that contributed to the response. Once determined, a logistic generalised additive model (GAM) was applied, as this model provided improved smoothing functions for the continuous variables over a standard GLM.

Regression analysis data are presented as logistic (probability) plots and Log-Odds plots. The logistic plots indicate the probability of a response variable occurring for a given input variable, standardised over the average of all other variables.

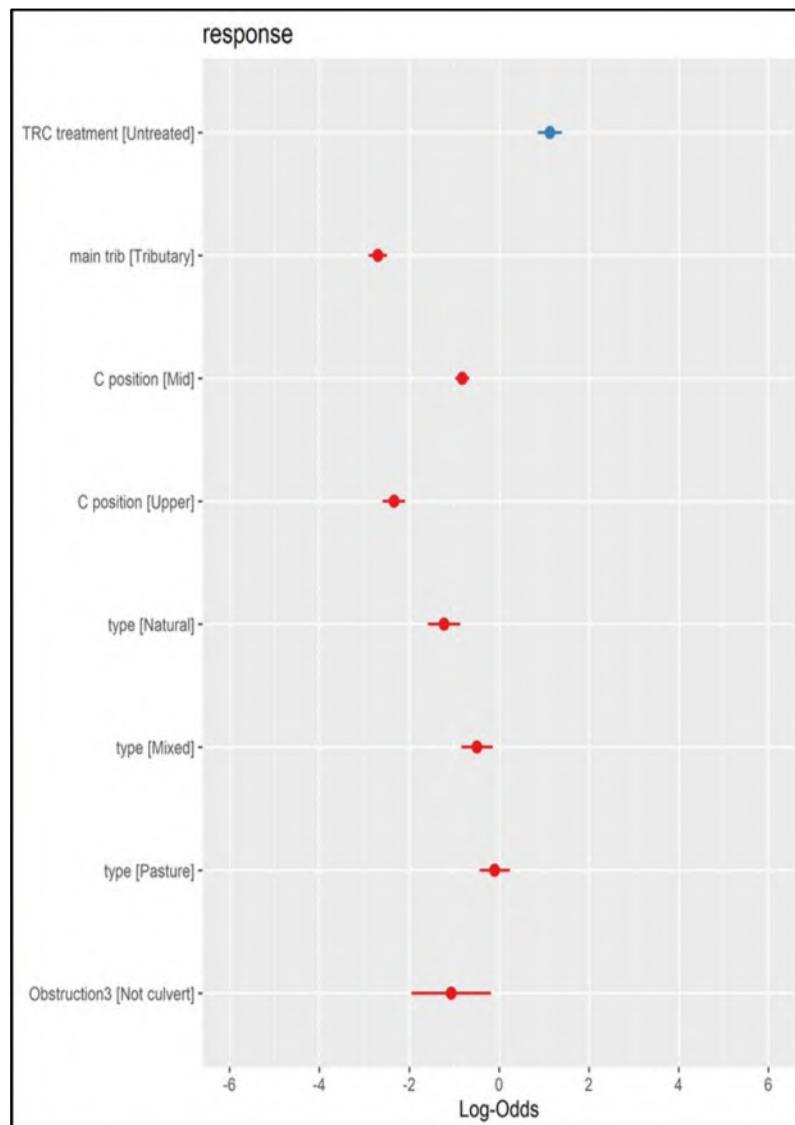
For example, in **Figure 10**, the probability of erosion is greater for untreated samples compared with treated samples, and for vegetation height the probability of erosion generally declines when vegetation height is greater than 4 m.



**Figure 10.** Logistic plot example.

The Log-Odds plots indicate the relative effect (either positive or negative) of explanatory variables on the probability of a response variable occurring. This is the same information as presented in **Figure 10** but shows

the relative effect across variables without having to standardise the effects. For example, in **Figure 11**, the [Untreated] explanatory variable has a positive effect on the probability of erosion occurring (i.e. the probability of erosion is greater for this explanatory variable relative to the other explanatory variables), whereas the [Tributary] variable has the greatest negative relative effect on the probability of erosion (i.e. the probability of erosion is least for this explanatory variable relative to the other explanatory variables).

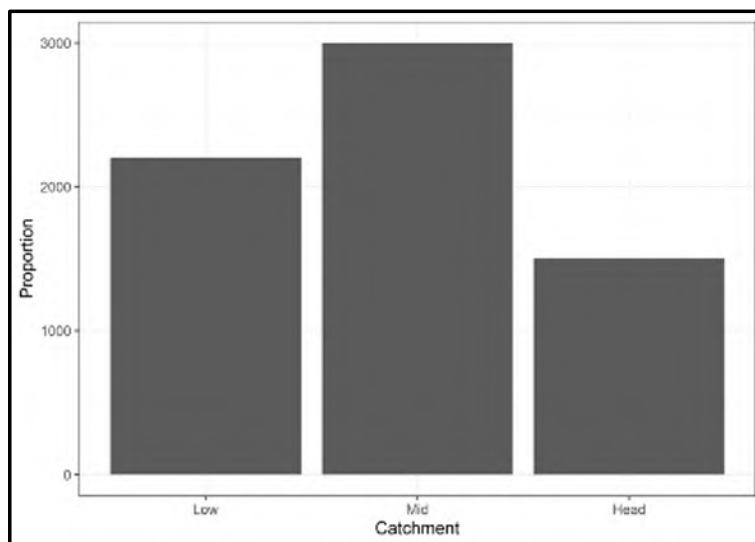


**Figure 11.** Log-Odds plot example.

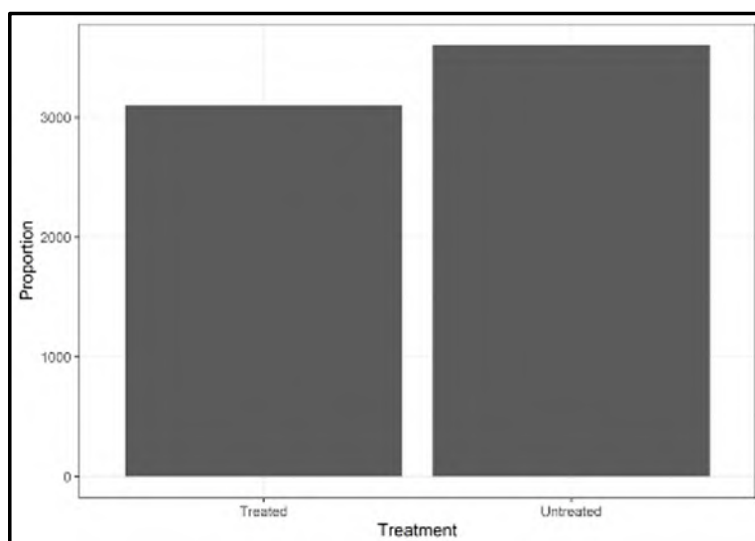
## 9.4 RESULTS AND DISCUSSION

### 9.4.1 Distribution of samples

The total number of samples in the assessment was 6700. The distribution of samples in the assessment is shown by catchment position (**Figure 12**) and TRC treated and untreated (**Figure 13**).



**Figure 12.** Number of samples by catchment position.

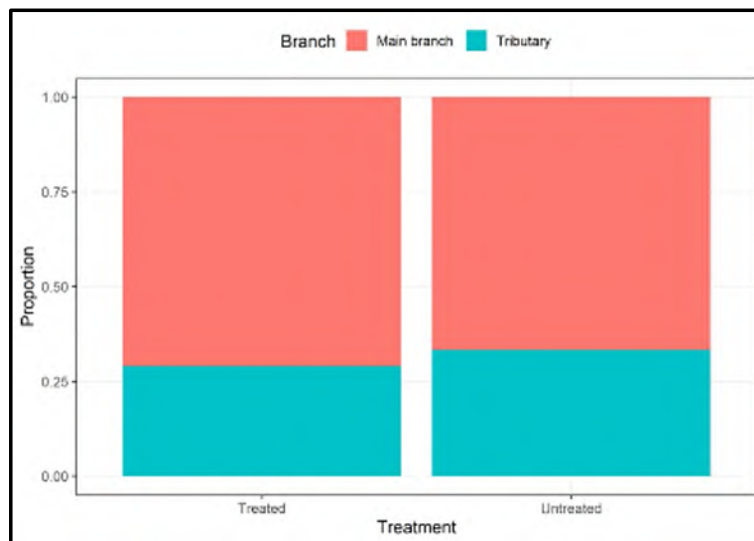


**Figure 13.** Number of samples by TRC treated and untreated.

The uneven distribution of samples throughout the catchment and across treatments was mainly due to the availability of valid sample locations where TRC treatment comparisons were possible. A greater proportion of farms in the mid and lower catchment had TRC treated waterways compared with the upper catchment.



The proportion of treated and untreated samples for the main branch and tributaries is shown in **Figure 14**.

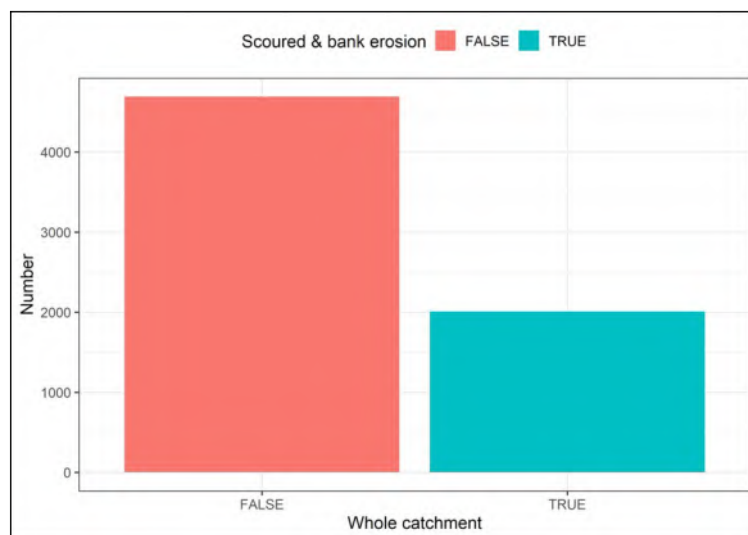


**Figure 14.** Proportion of treated and untreated samples for main branch vs tributaries.

The relative proportion of samples for the main branch and tributaries approximated the relative total bank length of each in the catchment.

#### 9.4.2 Erosion

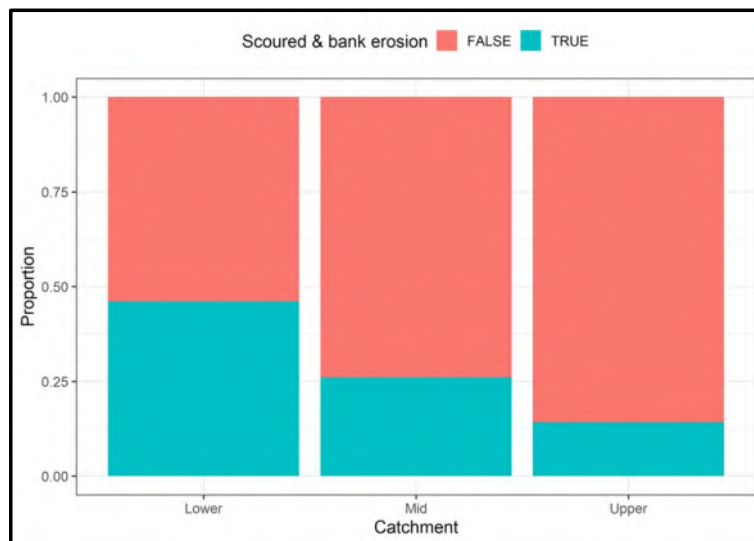
**Figure 15** shows the proportions of samples with and without erosion.



**Figure 15.** Number of samples with and without erosion for the whole catchment.

Samples with erosion totalled 2000 of the 6700 samples (30%). This is irrespective of catchment position, vegetation type or had TRC treatment.

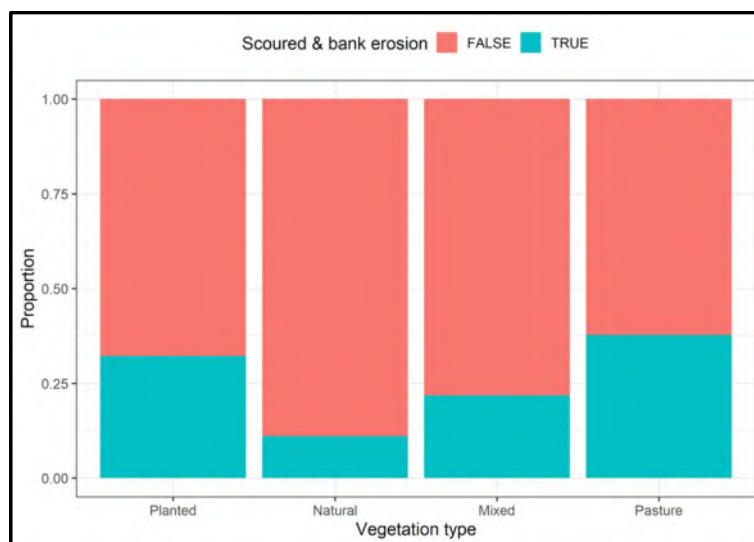
**Figure 16.** shows the proportion of erosion by catchment position.



**Figure 16.** Proportion of erosion by catchment position.

Erosion was greatest in the lower catchment and decreases through the mid catchment to the upper catchment.

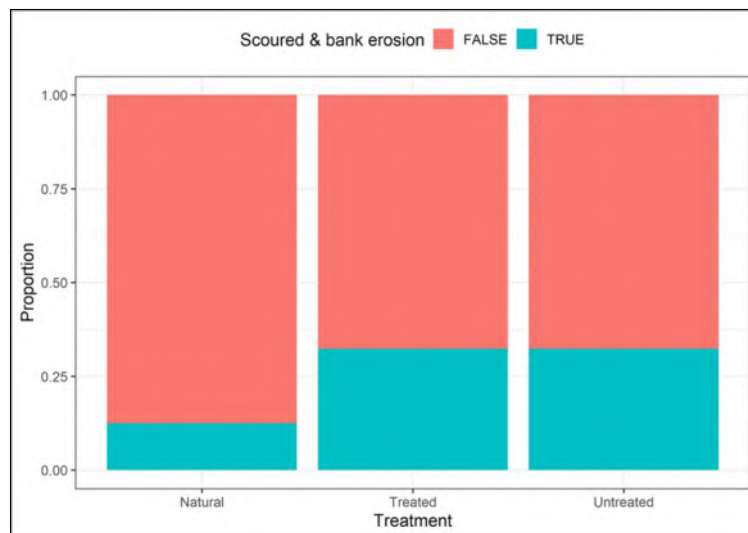
**Figure 17** shows the proportion of erosion for vegetation types in the catchment irrespective of TRC treatment.



**Figure 17.** Proportion of erosion by vegetation type.

Erosion was greatest for pasture, then planted samples, followed by mixed vegetation and was least for samples with natural vegetation. The high value for Planted is most likely due to the plants being young.

**Figure 18** shows the proportion of erosion for natural, TRC treated and untreated samples.



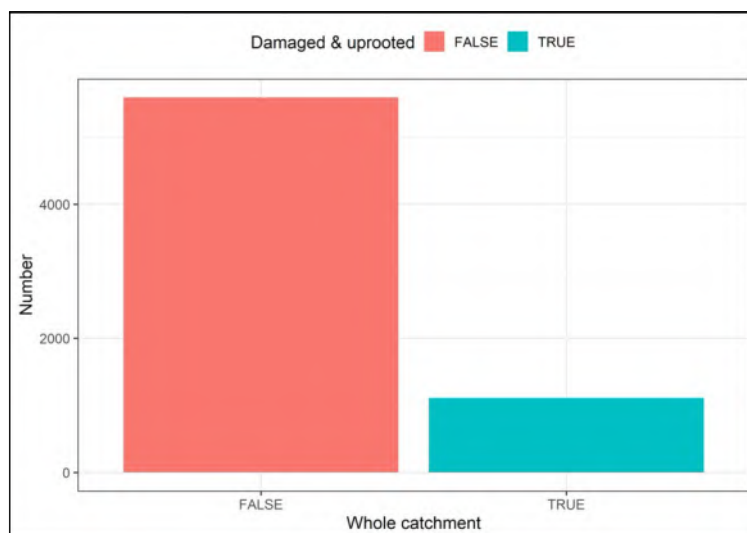
**Figure 18.** Proportion of erosion by treatment.

Erosion was similar for TRC treated sites compared with untreated sites, and both had greater erosion than for natural vegetation. The likely reason for this is that TRC treatment is likely targeted at reaches with erosion, or greater potential for erosion. Additionally, the majority of the treated sites still had young vegetation which was yet to establish and provided minimal protection against erosion.

Channel width data collected during the assessment indicated main branch channel width was commonly between 6-12 m compared with tributary channel widths of 1-6 m. Field observations indicated that erosion on the tributaries was most common for tributary channels with width of 4-6 m.

#### 9.4.3 Vegetation damage

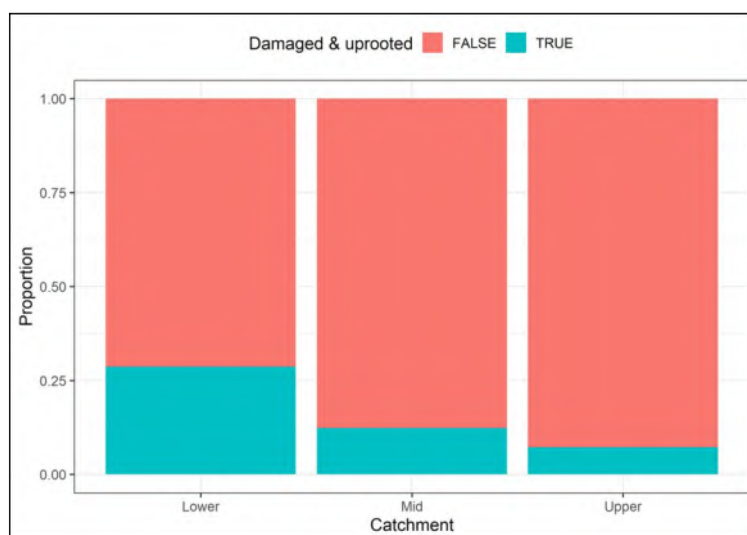
**Figure 19** shows the proportions of samples with and without vegetation damage.



**Figure 19.** Number of samples with and without vegetation damage for the whole catchment.

Samples with vegetation damage totalled 1109 of the 6700 samples (17%). This is irrespective of catchment position, vegetation type or had TRC treatment.

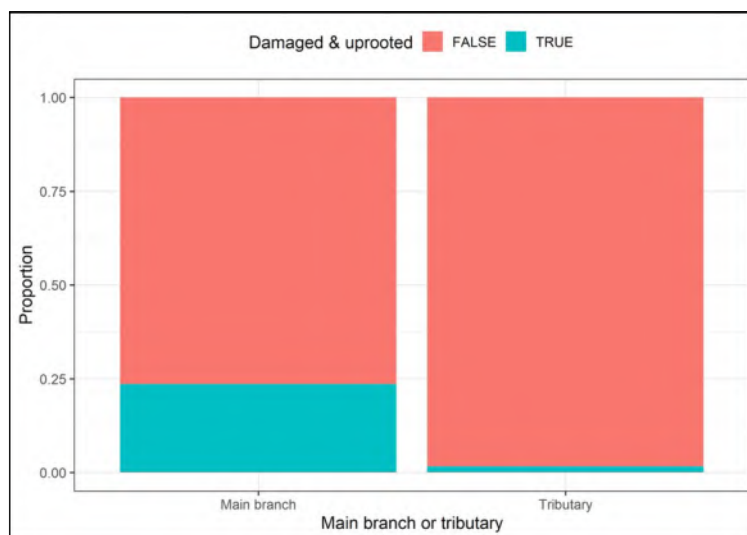
**Figure 20** shows the proportion of erosion by catchment position.



**Figure 20.** Proportion of sites with and without vegetation damage by catchment position.

Vegetation damage was greatest in the lower catchment and decreases through the mid catchment to the upper catchment.

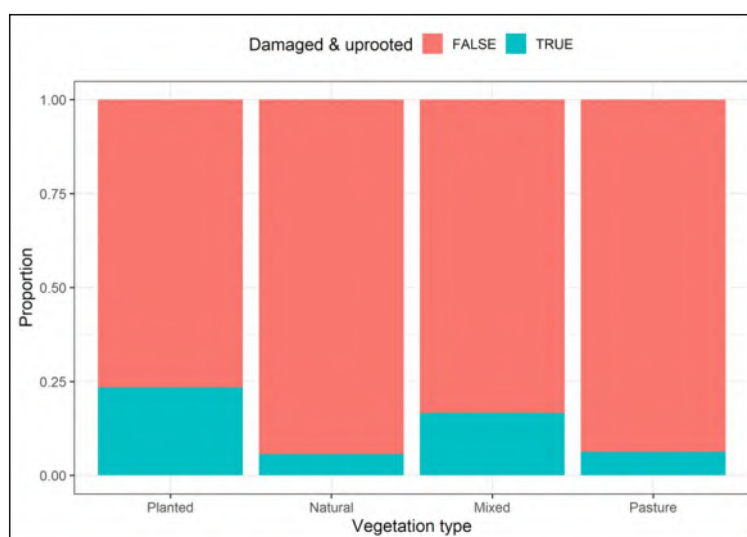
**Figure 21** shows the proportions of samples with and without vegetation damage for the main branch and tributaries.



**Figure 21.** Proportion of samples with and without vegetation damage for the main branch and tributaries.

Vegetation damage was greater for the main branch than for tributaries. This most likely due to the greater flows associated with the main branch comparative to the smaller tributaries.

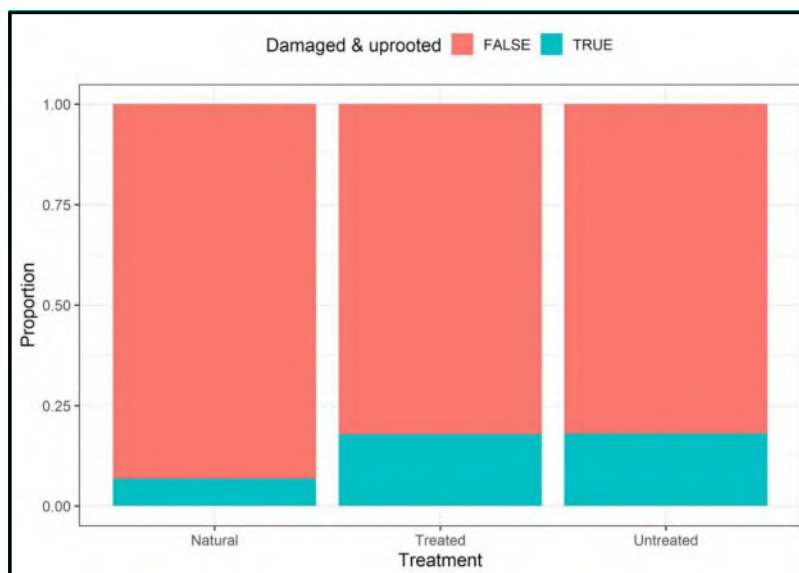
**Figure 22** shows the proportion of vegetation damage for vegetation types in the catchment irrespective of TRC treatment.



**Figure 22.** Proportion of sites with and without vegetation damage by vegetation type.

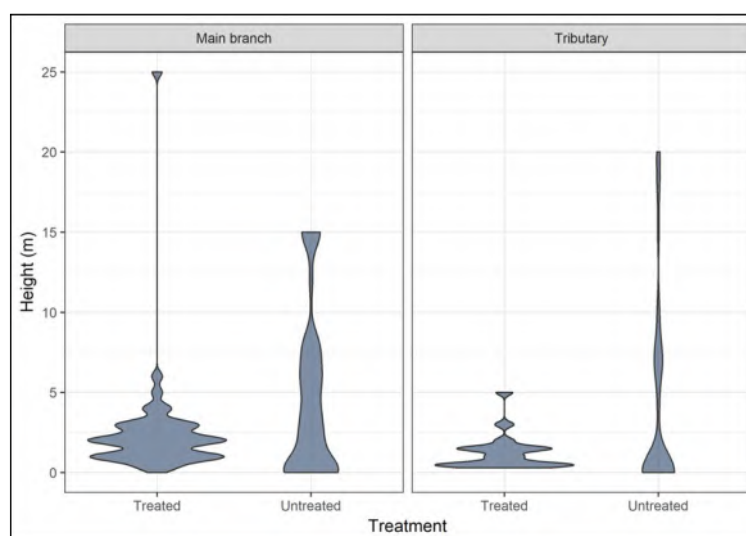
Vegetation damage was greatest for planted vegetation, decreasing slightly for mixed, and increasingly lower for pasture and natural vegetation. Note that the low value for pasture is because of the near absence of woody vegetation (planted or natural vegetation).

**Figure 23** shows the proportion of vegetation damage for natural, TRC treated and untreated samples.



**Figure 23.** Proportion of samples with and without vegetation damage by treatment.

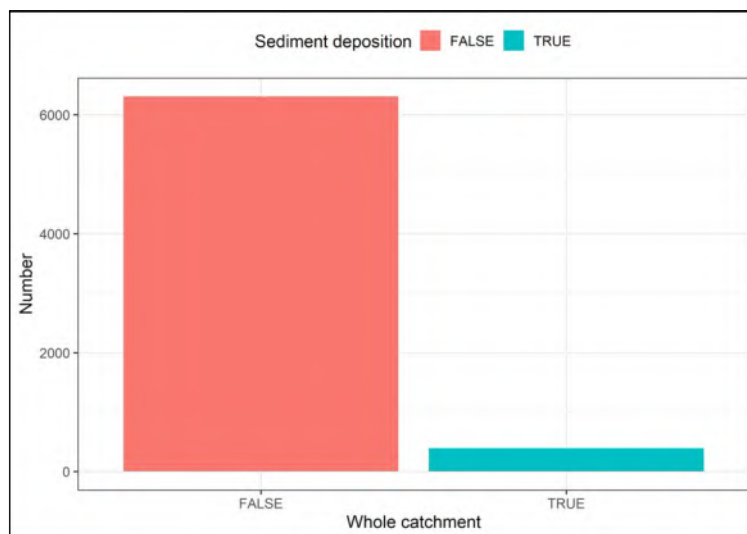
Vegetation damage was similar for TRC treated sites compared with untreated sites, and both had greater vegetation damage than for natural vegetation. TRC treated samples are likely to have a greater amount of planted riparian vegetation than untreated samples, hence have greater potential for vegetation damage, (especially when the plantings are young). TRC treated samples were predominantly in the mid and lower catchment where flows were greater and likely targeted high energy reaches with potential for bank erosion (and resulting damage to vegetation). Additionally, the majority of the TRC treated samples still had young vegetation (as indicated by the vegetation height distributions shown in **Figure 24**) which was yet to establish and remains prone to damage and uprooting during very high flows.



**Figure 24.** Vegetation height distributions for treated and untreated samples.

#### 9.4.4 Sediment deposition

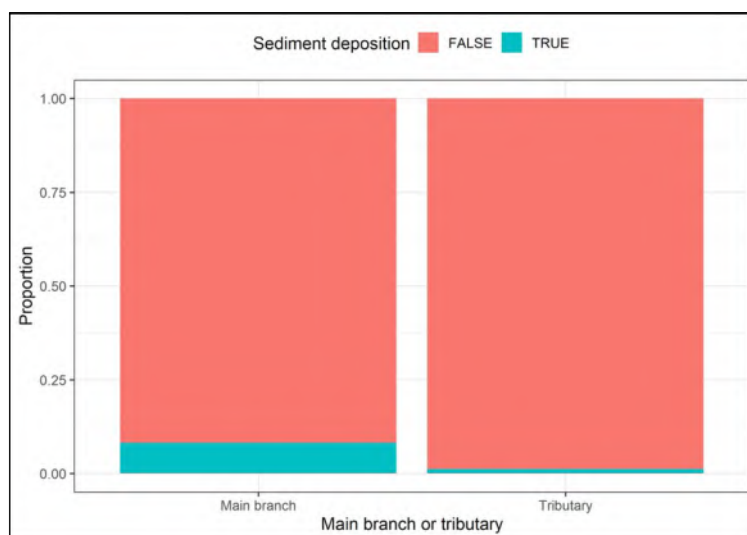
Figure 25 shows the proportions of samples with and without sedimentation.



**Figure 25.** Number of samples with and without sediment deposition for the whole catchment.

Only 391 samples of the 6700 samples (6%) had sediment deposition. It is likely that coarser sediment resulting from bank erosion was redistributed relatively evenly within the channel and fine sediment was transported out of channels, either onto non-riparian land or out to sea.

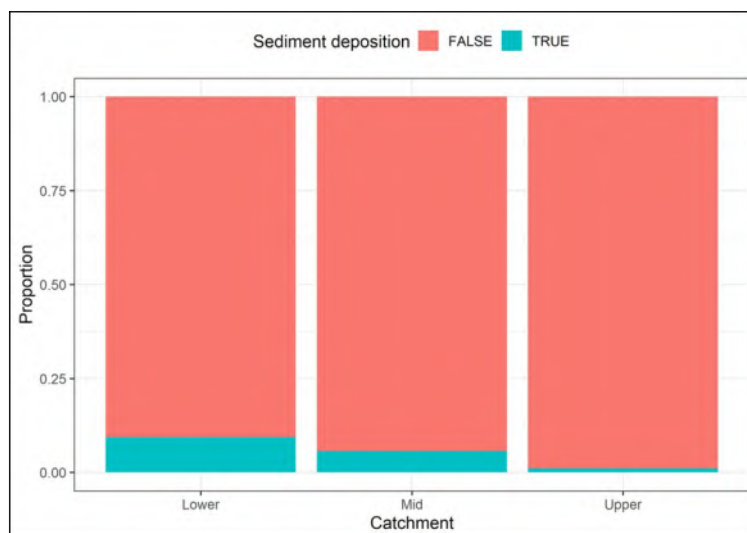
Figure 26 shows the proportions of samples with and without sediment deposition for the main branch and tributaries.



**Figure 26.** Proportion of samples with and without sedimentation for the main branch and tributaries.

Sediment deposition was greater for main branch samples compared with tributary samples, and the proportion of samples with sediment deposition was small for both.

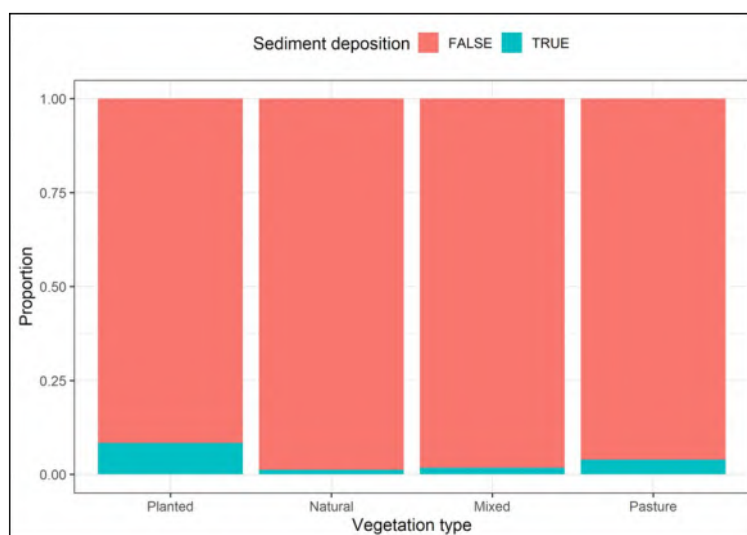
**Figure 27** shows the proportion of sedimentation by catchment position.



**Figure 27.** Proportion of sedimentation by catchment position.

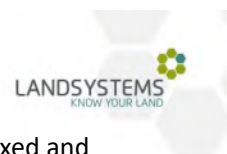
Sediment deposition was greatest in the lower catchment and decreases through the mid catchment to the upper catchment.

**Figure 28** shows the proportion of erosion for vegetation types in the catchment irrespective of TRC treatment.



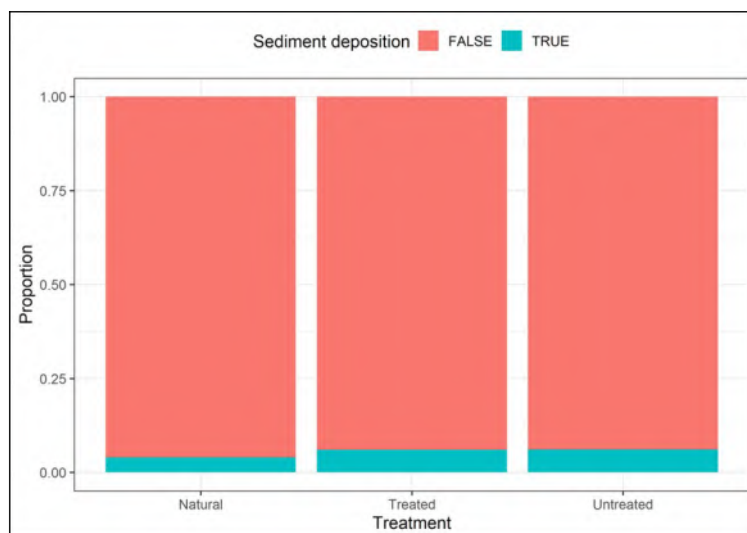
**Figure 28.** Proportion of sedimentation by vegetation type.





Sediment deposition was greatest for planted, followed by pasture, and least for samples with mixed and natural vegetation.

**Figure 29** shows the proportion of erosion for natural, TRC treated and untreated samples.

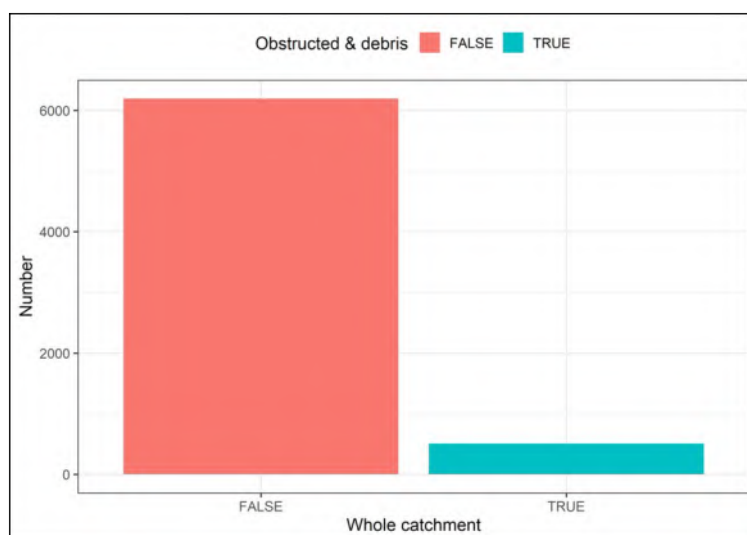


**Figure 29.** Proportion of sedimentation by treatment.

Sediment deposition for treated and untreated samples was comparable, and greater than for natural vegetation. Less sediment deposition under natural vegetation could be the result of greater bank and channel stability under natural vegetation. However, it is important to note that a high proportion of natural samples were located in the upper catchment which may be a confounding factor.

#### 9.4.5 Obstructions and debris

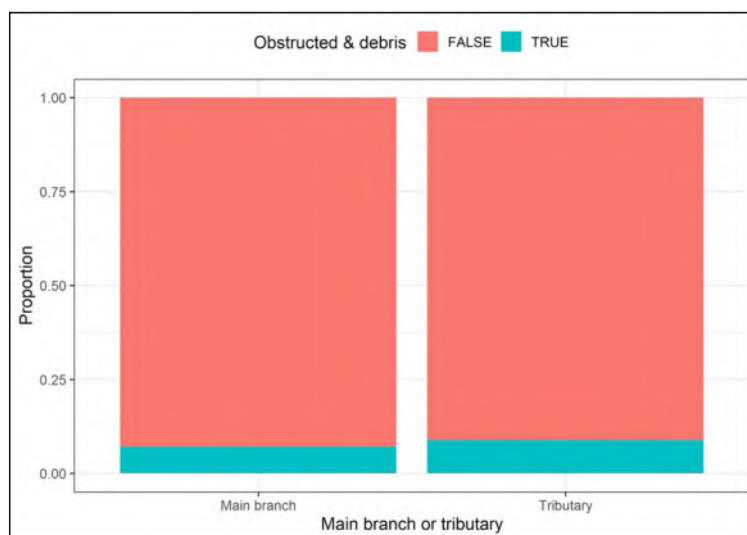
**Figure 30** shows the proportion of samples with and without obstructions and debris for the whole catchment.



**Figure 30.** Proportion of samples with and without obstructions and debris for the whole catchment.

Samples with obstructions and debris totalled 505 of the 6700 samples (8%). This is irrespective of catchment position, vegetation type or had TRC treatment.

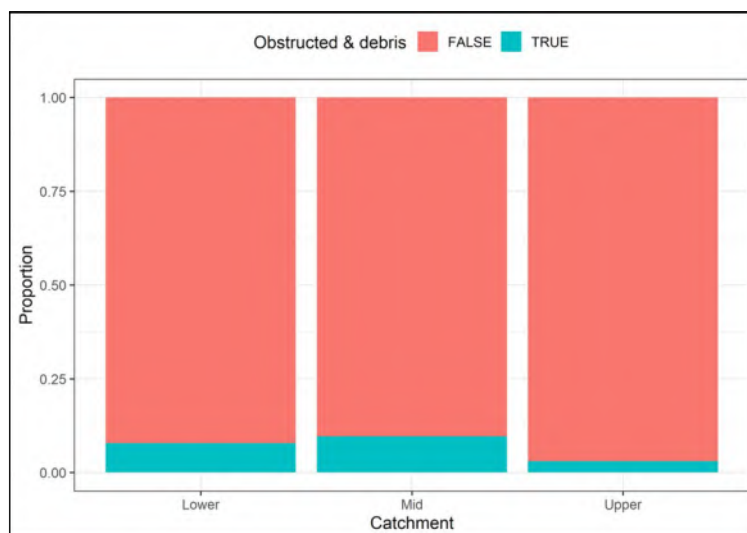
**Figure 31** shows the proportions of samples with and without obstructions and debris for the main branch and tributaries.



**Figure 31.** Proportion of samples with and without obstructions and debris for the main branch and tributaries.

Obstructions and debris were slightly greater for tributaries than for main branch samples.

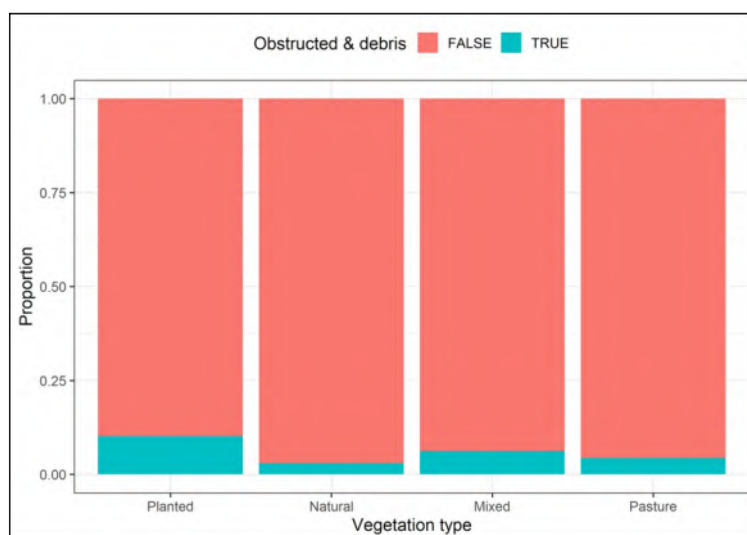
**Figure 32** shows the proportion of obstructions and debris by catchment position.



**Figure 32.** Proportion of sites with and without obstructions and debris by catchment position.

Obstructions and debris was greatest in the mid catchment and the lowest the upper catchment.

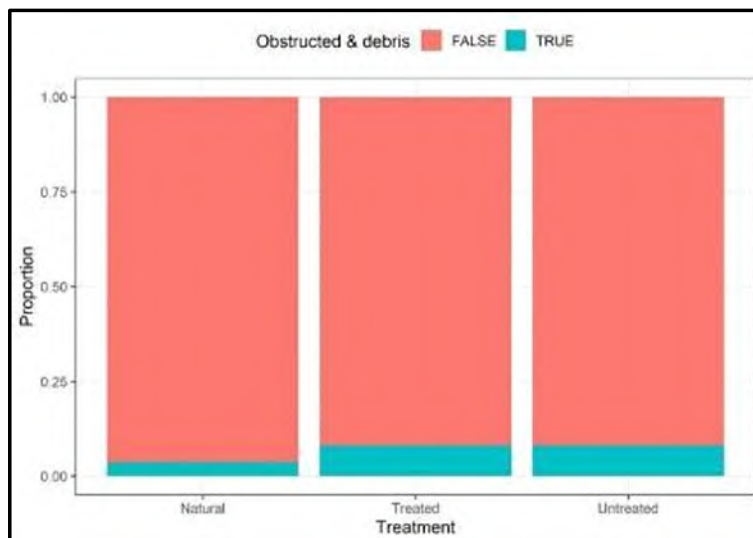
**Figure 33** shows the proportion of obstructions and debris for vegetation types in the catchment irrespective of TRC treatment.



**Figure 33.** Proportion of sites with and without obstructions and debris by vegetation type.

Obstructions and debris was greatest for planted vegetation, followed by mixed vegetation and pasture, with the least for natural vegetation.

**Figure 34** shows the proportion of obstructions and debris for natural, TRC treated and untreated samples.



**Figure 34.** Proportion of samples with and without obstructions and debris by treatment.

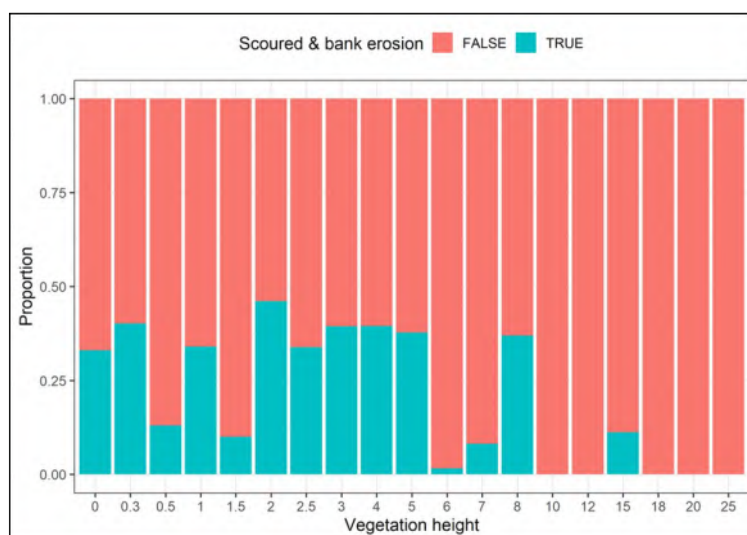
Obstructions and debris were similar for TRC treated and untreated, and lower for natural vegetation.

#### 9.4.6 Riparian vegetation height and width

Response variable groups were assessed against riparian vegetation height and width to investigate whether patterns existed.

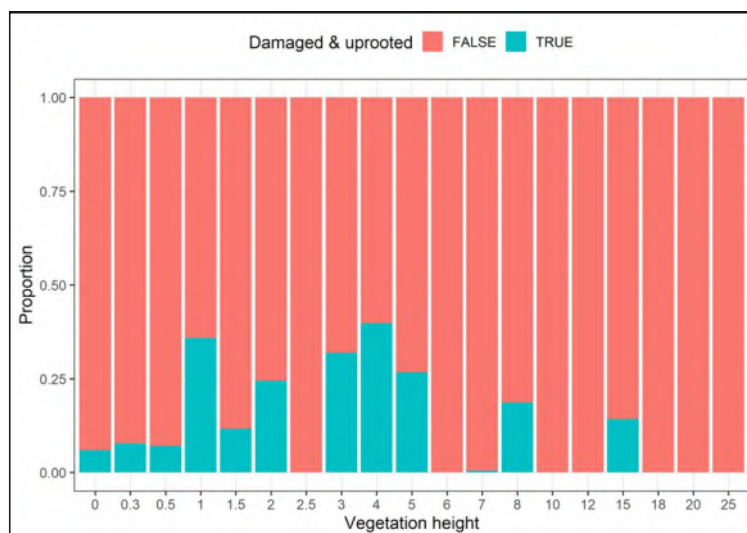
##### 9.4.6.1 Vegetation height

Figure 35 shows the proportion of samples with and without erosion by vegetation height.



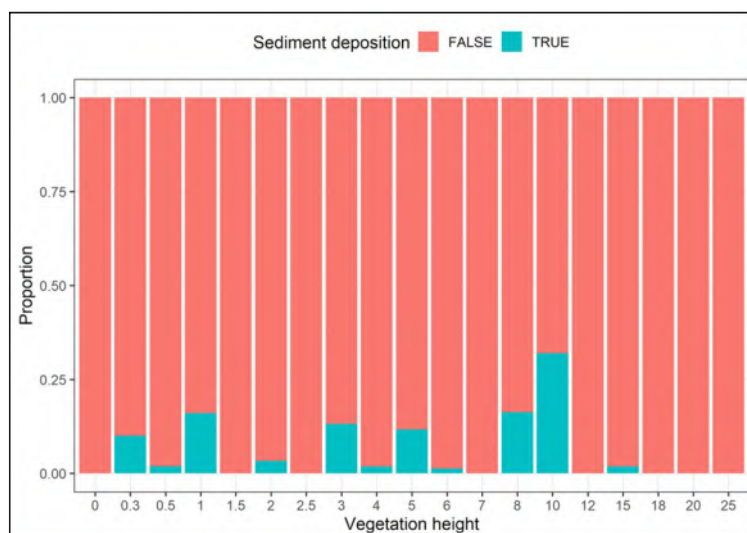
**Figure 35.** Proportion of samples with and without erosion by vegetation height.

Figure 36 shows the proportion of samples with and without vegetation damage by vegetation height.



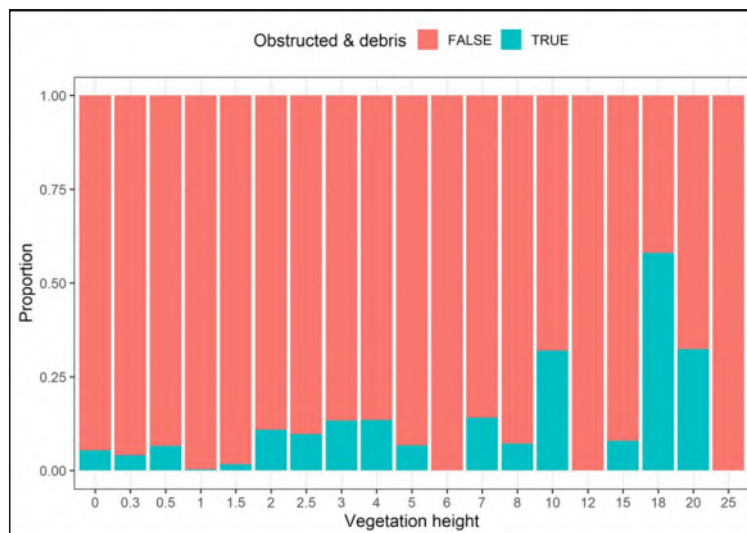
**Figure 36.** Proportion of samples with and without vegetation damage by vegetation height.

**Figure 37** shows the proportion of samples with and without sediment deposition by vegetation height.



**Figure 37.** Proportion of samples with and without sediment deposition by vegetation height.

**Figure 38** shows the proportion of samples with and without obstructions and debris by vegetation height.



**Figure 38.** Proportion of samples with and without obstructions and debris by vegetation height.

A summary of the effect of vegetation height on response variable groups is provided in **Table 2**.

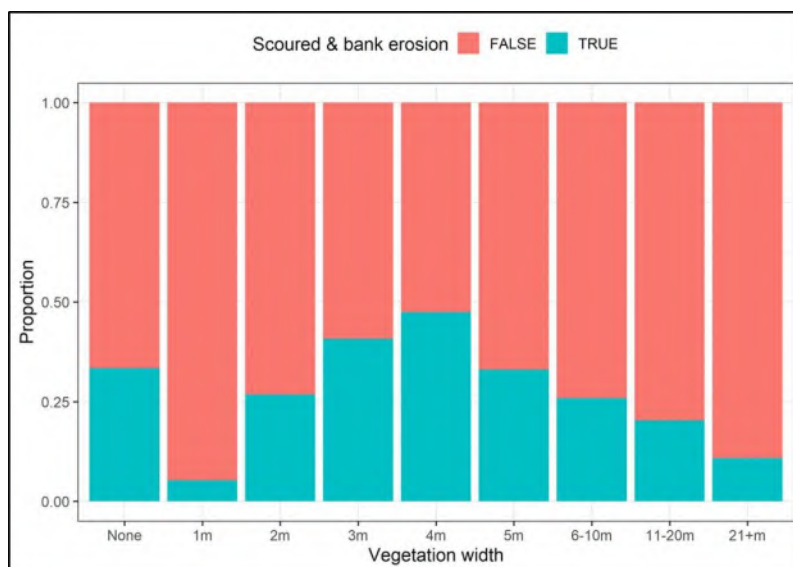
**Table 2.** Summary of the effect of vegetation height on response variable groups.

Response variable group	Effects
Erosion	Greatest with vegetation height up to 5 m, then generally decreases.
Vegetation damage	Increases with vegetation height up to 5 m, then generally decreases.
Sediment deposition	Present and generally consistent up to 10 m; possible decrease for >10 m heights.
Obstructions and debris	Generally increases with increasing vegetation height.

The summary in **Table 2** suggests that erosion and vegetation damage are greatest for vegetation heights of up to 5m and may decrease for vegetation heights greater than 5 m. Patterns for sedimentation and obstructions and debris are less clear but suggest that both may increase when vegetation widths are >7 m.

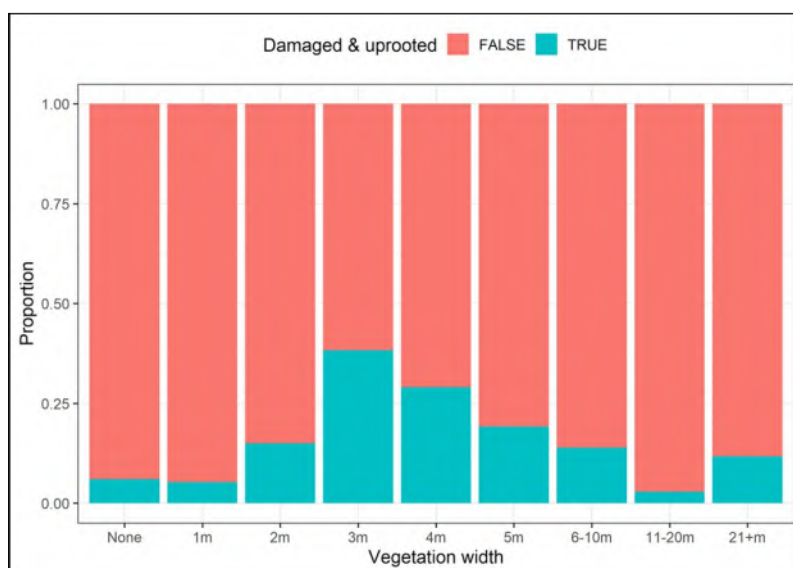
#### 9.4.6.2 Vegetation width

**Figure 39** shows the proportion of samples with and without erosion by vegetation width.



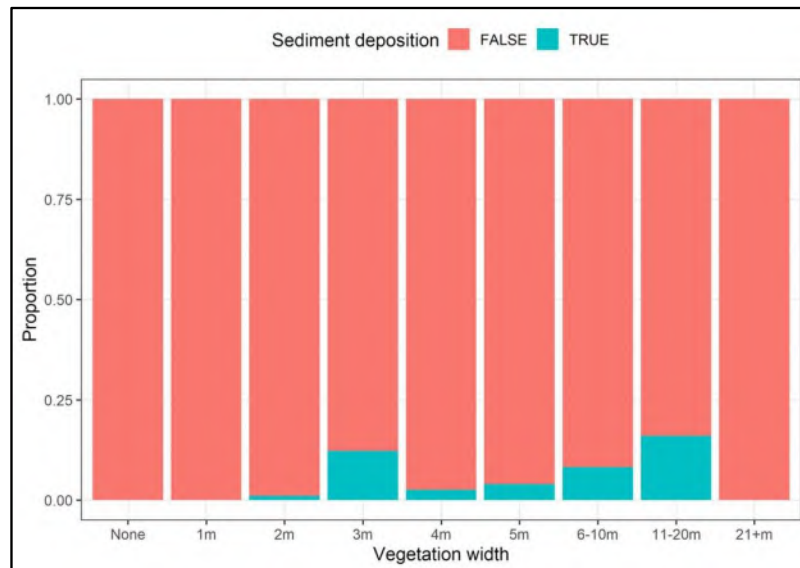
**Figure 39.** Proportion of samples with and without erosion by vegetation width.

**Figure 40** shows the proportion of samples with and without vegetation damage by vegetation width. Of note is the higher proportion of erosion for samples with no woody vegetation (“none”) compared with samples for 1 m and 2 m vegetation width. Also, it is likely that the increased proportion of erosion for samples with 3 m and 4 m is likely to be associated with wider channels (either larger tributary or smaller main branch channels) which will have greater peak flows and erosive potential.



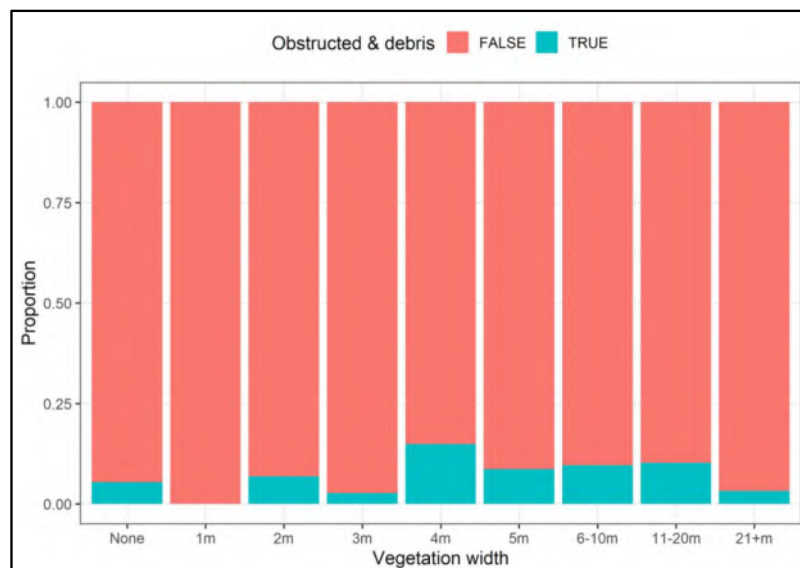
**Figure 40.** Proportion of samples with and without vegetation damage by vegetation width.

**Figure 41** shows the proportion of samples with and without sediment deposition by vegetation width.



**Figure 41.** Proportion of samples with and without sediment deposition by vegetation width.

Figure 42 shows the proportion of samples with and without obstructions and debris by vegetation width.



**Figure 42.** Proportion of samples with and without obstructions and debris by vegetation width.

A summary of the effect of vegetation width on response variable groups is provided in **Table 3**.



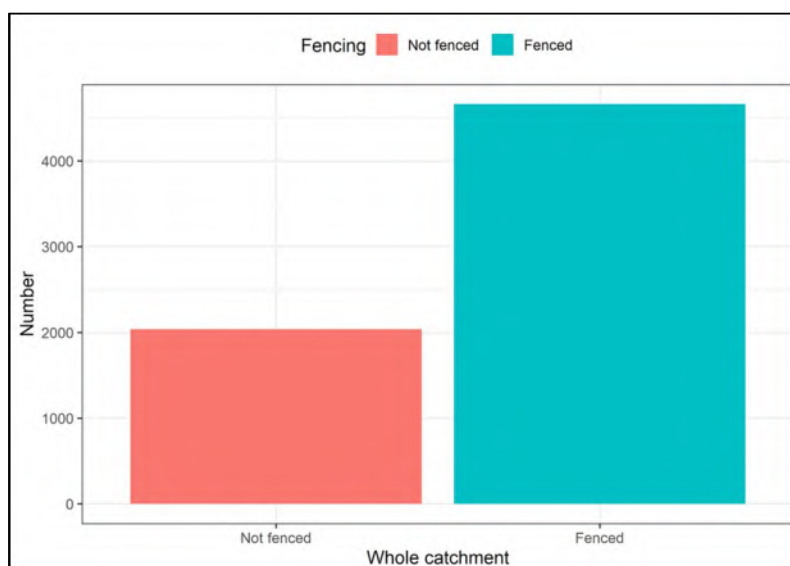
**Table 3.** Summary of the effect of vegetation width on response variable groups.

Response variable group	Effects
Erosion	Greatest erosion for none and 3-5 m; possible decrease >5 m widths.
Vegetation damage	Greatest vegetation damage between 3-5 m; possible decrease >5 m widths.
Sediment deposition	Predominantly $\geq 3$ m widths; possible increases from $\geq 4$ m to a maximum at 10-20 m widths.
Obstructions and debris	Present but low across most vegetation widths; slightly greater $\geq 4$ m widths.

The summary in **Table 3** suggests that erosion and vegetation damage are greatest for vegetation widths of up to 5 m and may decrease for vegetation widths greater than 5 m. Patterns for sedimentation and obstructions and debris are less clear but suggest that both may increase when vegetation widths are 4 m or greater.

#### 9.4.7 Riparian fencing

Riparian fencing plays an important role in preventing stock access to waterways, and is a requirement under national policy for water quality<sup>18</sup>. Response variable groups were assessed against fencing to investigate if patterns existed. **Figure 43** shows the proportion of samples with and without fencing for the whole catchment.

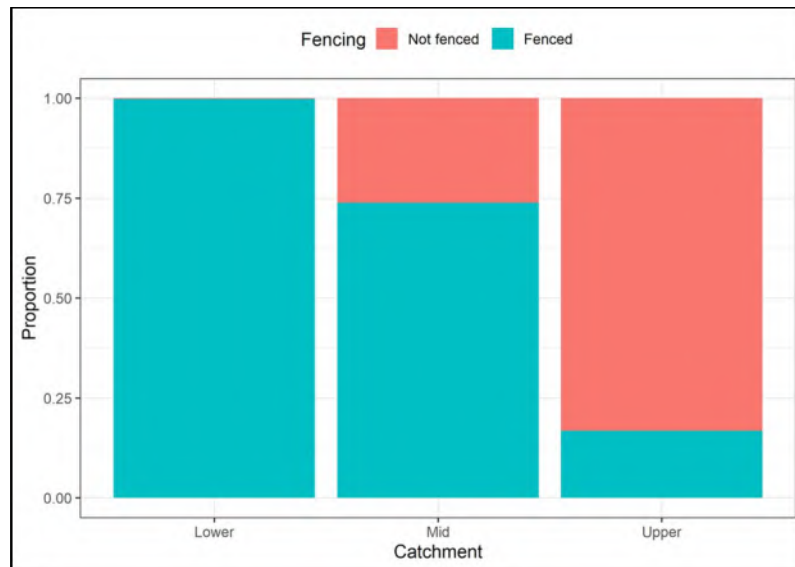
**Figure 43.** Number of samples with and without fencing for the whole catchment.

<sup>18</sup> <https://www.legislation.govt.nz/regulation/public/2020/0175/latest/whole.html>



Samples without fencing totalled 2038 of the 6700 samples (30%). This is irrespective of catchment position, vegetation type or had TRC treatment.

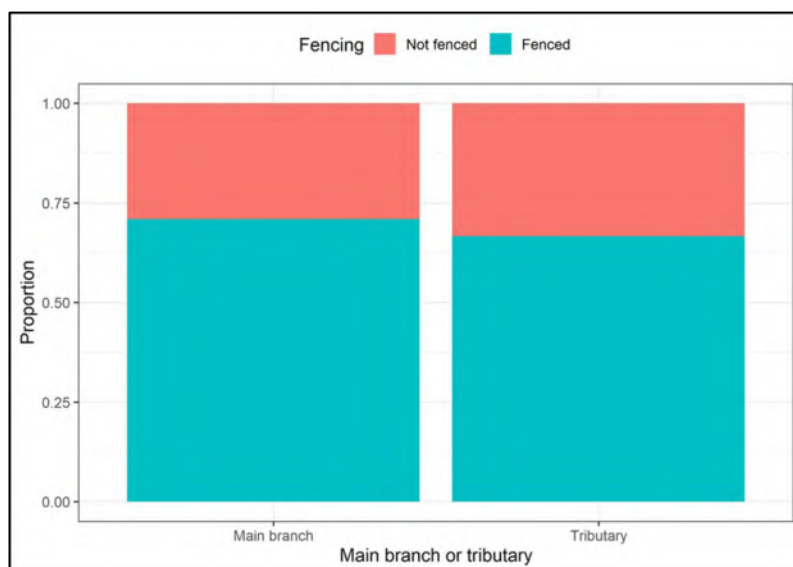
**Figure 44** shows the proportion of fencing by catchment position.



**Figure 44.** Proportion of sites with and without fencing by catchment position.

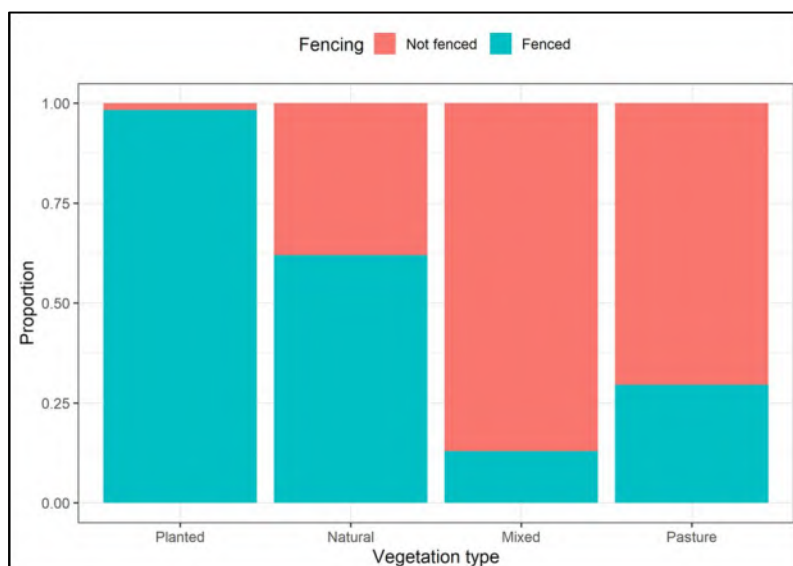
Fencing was greatest in the lower catchment at almost 100% and decreases through the mid catchment to the upper catchment.

**Figure 45** shows the proportions of samples with and without fencing for the main branch and tributaries. Fencing was similar for the main branch and tributaries.



**Figure 45.** Proportion of samples with and without fencing for the main branch and tributaries.

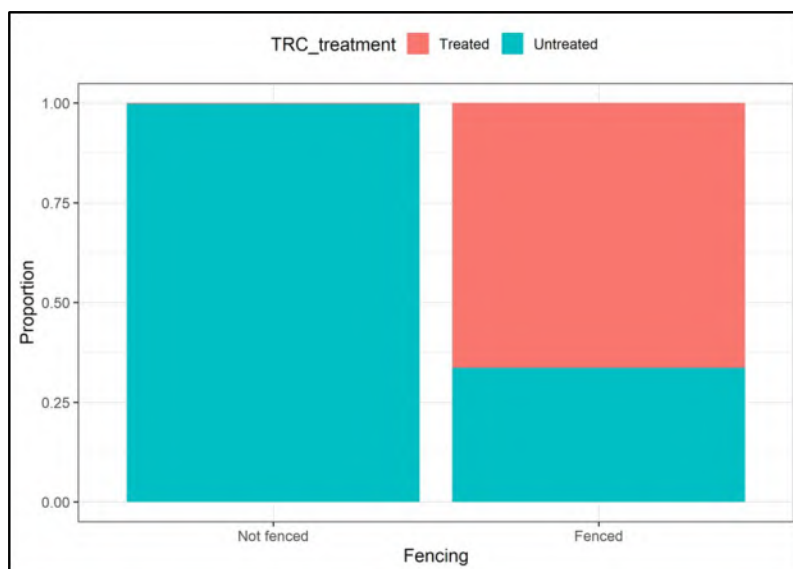
**Figure 46** shows the proportion of fencing for vegetation types in the catchment irrespective of TRC treatment.



**Figure 46.** Proportion of sites with and without fencing by vegetation type.

Fencing was greatest for planted vegetation, decreasing for natural vegetation, and increasingly lower for pasture and mixed vegetation. The high proportion of fencing for planted vegetation is expected given the requirement of fencing for all TRC treated plantings.

**Figure 47** shows the proportion of fencing for TRC treatment and untreated samples.



**Figure 47.** Proportion of samples with and without fencing by treatment.

Fencing was close to 100% for TRC treated samples and more than double that of untreated samples. This highlights the important role the Riparian Management Programme plays in progressing stock exclusion from waterways in the region.

#### 9.4.8 Statistical analyses

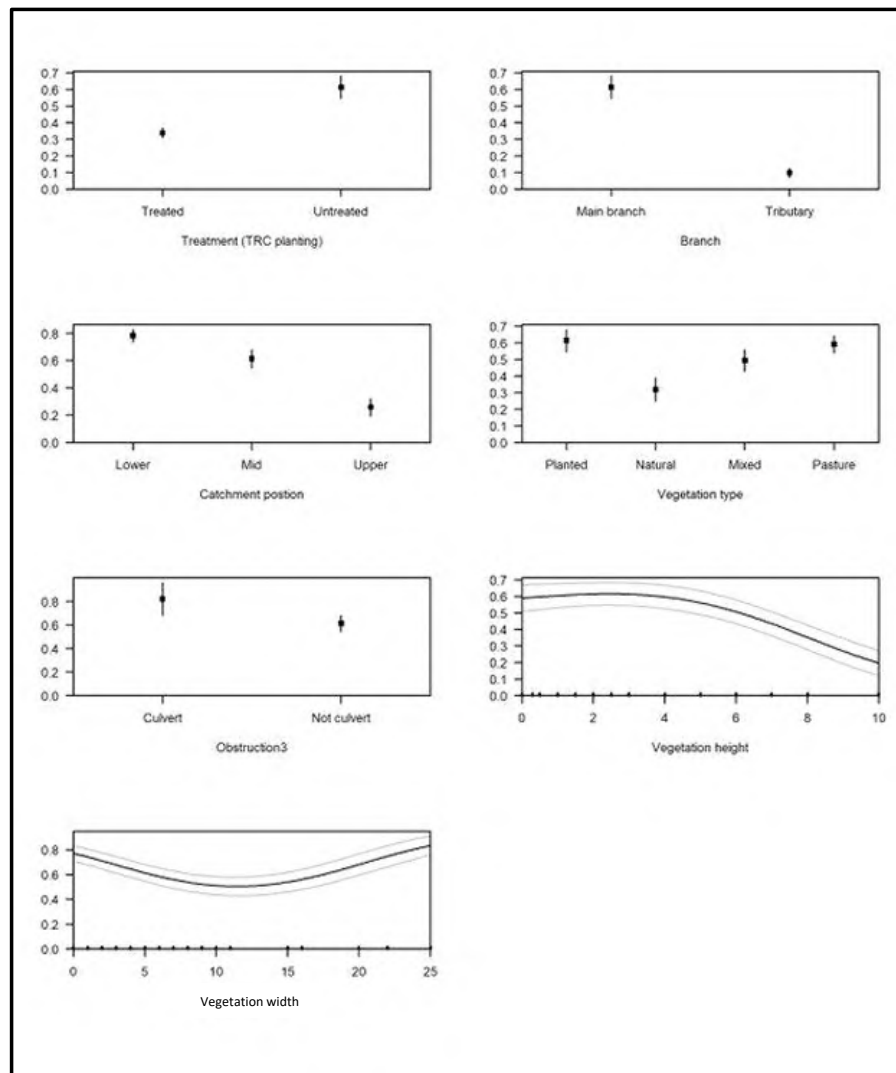
Regression analyses using a Generalised Additive Model (GAM) were performed on erosion and vegetation damage to determine the effect of the explanatory variables.

Seven explanatory variables were selected as potentially affecting erosion and vegetation damage: treatment, catchment position, waterway size class, vegetation height and width, and obstructions.

Logistic plots for each of the explanatory variables indicated the probability of a given response variable occurring. Log-Odds plots for all significant explanatory variables indicated the relative magnitude and whether the effect was positive or negative on the probability of a given response variable occurring.

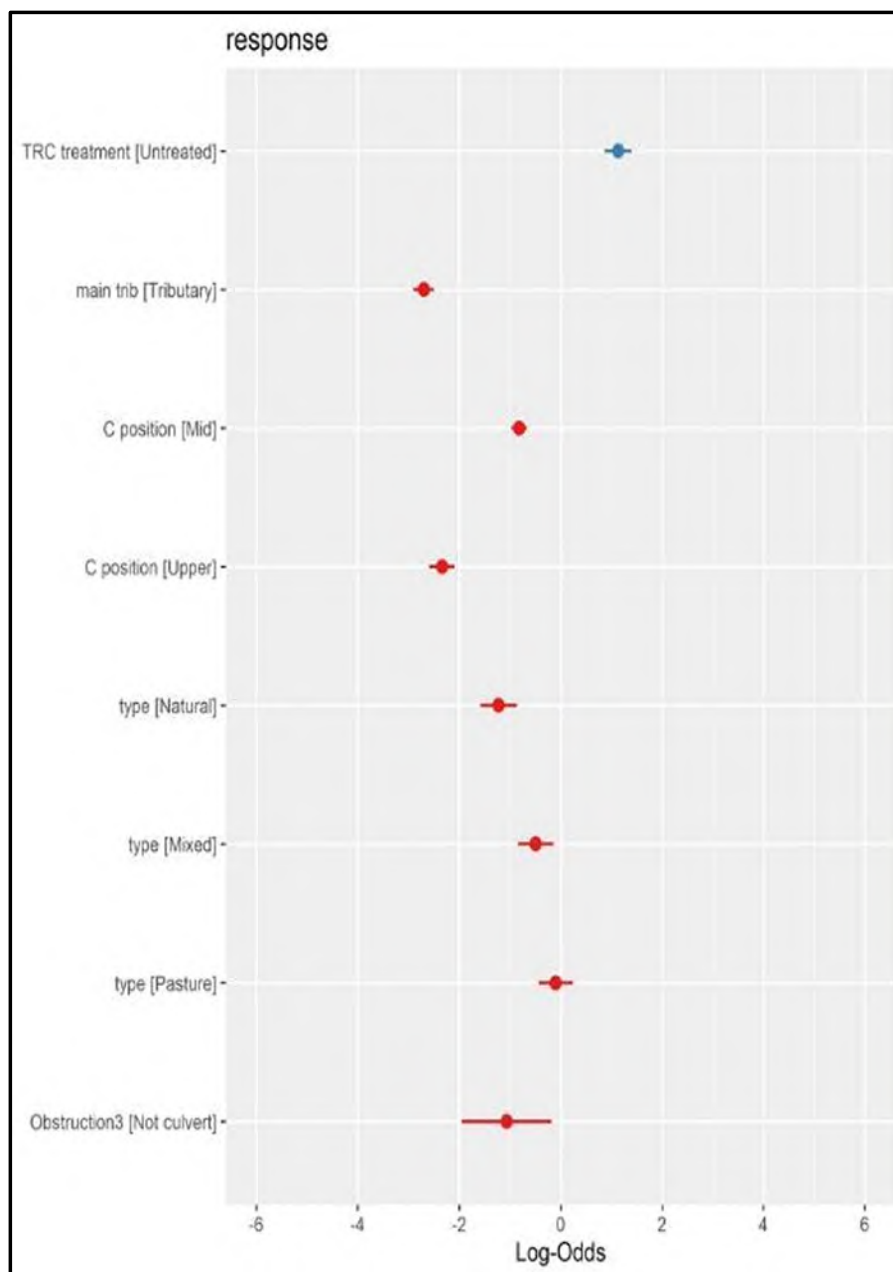
#### 9.4.8.1 Erosion (bank and scour)

**Figure 48.** shows the logistic plot for erosion.



**Figure 48.** Logistic plot for erosion.

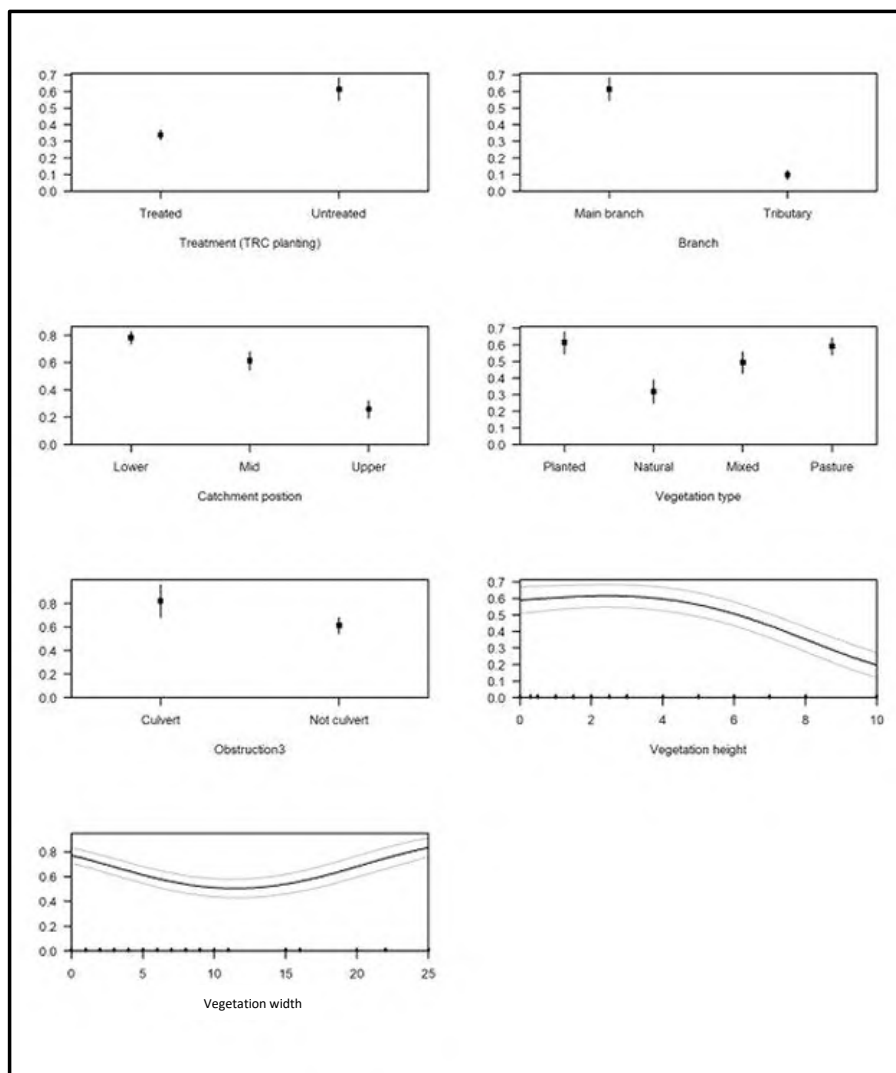
**Figure 49.** shows the Log-Odds plot for erosion.



**Figure 49.** Log-Odds plot for erosion.

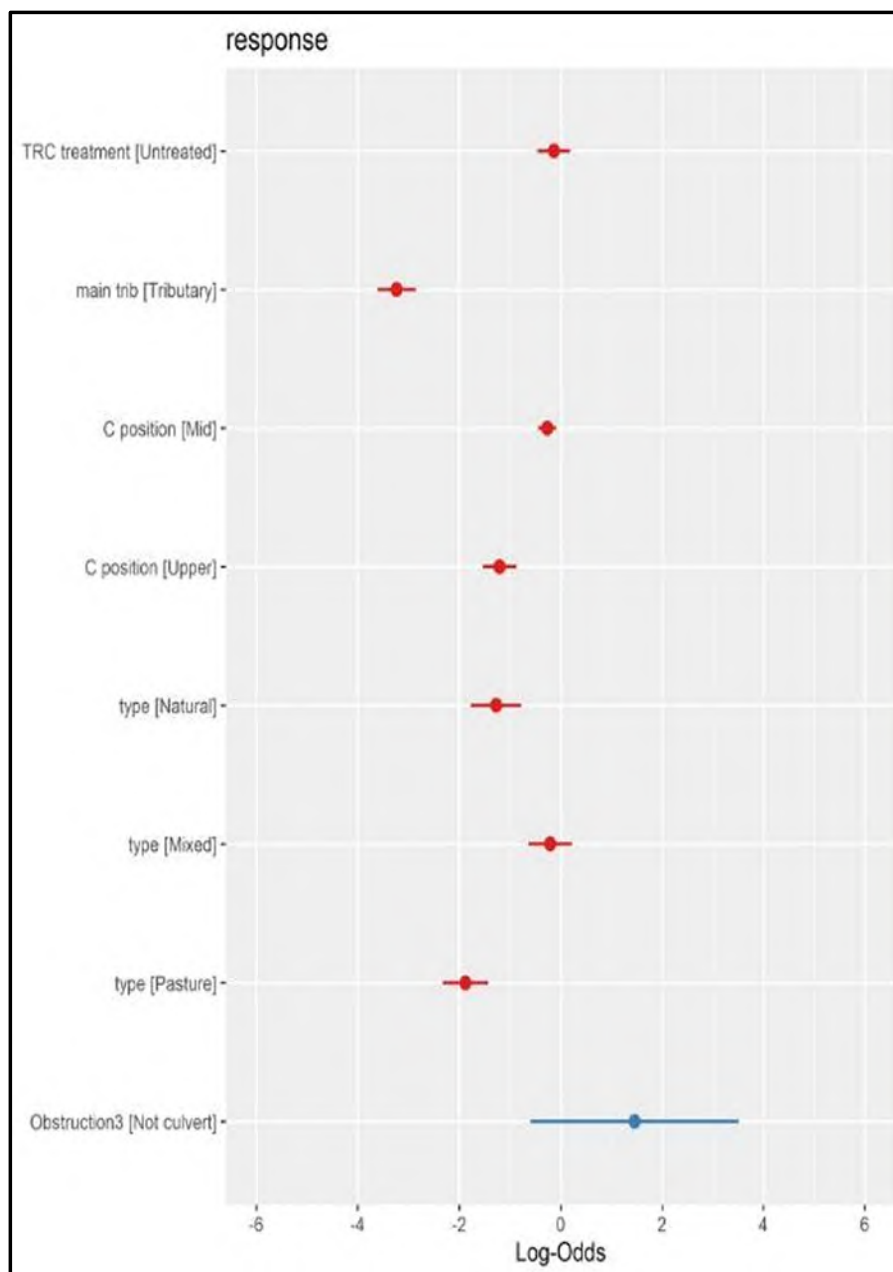
#### 9.4.8.2 Vegetation damage

**Figure 50.** shows the logistic plot for vegetation damage.



**Figure 50.** Logistic plot for vegetation damage.

**Figure 51.** shows the Log-Odds plot for vegetation damage.



**Figure 51.** Log-Odds plot for vegetation damage.





#### 9.4.9 Summary of main effects

A summary of the main effect of variables on the probability of erosion and vegetation damage occurring is provided in **Table 4**.

**Table 4.** Summary of variable effects on the probability of erosion occurring.

Response variable group	Erosion (probability of occurrence)	Vegetation damage (probability of occurrence)
Catchment position	Increased from the upper catchment to the lower catchment.	Greatest in the lower catchment and decreasing to the upper catchment.
Waterway size class	Tributary samples showed a lower probability of erosion occurring than main branch samples.	Greater and more variable probability of vegetation damage for the main branch compared with tributaries.
Treatment	TRC treatment showed a lower probability of erosion occurring than untreated.	TRC treatment and untreated showed a similar probability of vegetation damage occurring.
Vegetation type	Natural vegetation showed the lowest probability of erosion occurring and planted and pasture samples the highest.	Planted vegetation showed the highest probability of vegetation damage, followed by natural and pasture samples the least. Pasture was likely lowest due to the absence of woody vegetation.
Culverts	The presence of culverts possibly increased the probability of erosion occurring.	The presence of culverts possibly decreased the probability of vegetation damage occurring, although data was highly variable.
Vegetation height	Decreased with a vegetation height of 5 m or greater.	Possible slight vegetation damage increase with increasing vegetation height.
Vegetation width	Decreased as vegetation width increased to 10 m, then increased. The probability increase for >10 m is most likely due to the lack of data.	Decreased as vegetation width increased to 10 m, then increased. The probability increase for >10 m is most likely due to the lack of data.

## 9.5 ADDITIONAL FIELD OBSERVATIONS

Additional field observations were made during the Waitoteroa riparian survey. Additional observations included:

### 9.5.1 Planting diversity

There were reaches where a single species had been planted, rather than a mix of plants. Riparian margins consisting entirely of flax were most common (**Figure 52**).



**Figure 52.** *Examples of riparian margins planted with flax.*

When compared with a riparian buffer of mixed species and height classes on the main branch and wider tributaries, planting with flax is unlikely to provide any stream shading and little terrestrial habitat benefits. Additionally, in higher energy areas (predominantly on the main branch, flax was most commonly uprooted when planted close to the channel. Uprooting on tributaries was not commonly observed and provided increased bank stability. Another factor to consider is that dense planting with flax made access to the channel difficult.

Some guidance regarding the planting of flax and ability to cope with flooding is provided in TRC factsheet No. 25. Additionally, TRC factsheet No. 28 provides guidance on maintaining channels and floodplains which recommends avoiding placement of trees or shrubs in the floodway.

### 9.5.2 Critical source areas

Critical source areas are a major contributor of contaminants to waterways. Riparian buffers consisting of rank grass or woody vegetation are known to reduce contaminants reaching the waterway. However, the effectiveness of the buffer is diminished if it is narrow or does not follow the contour of the land surrounding the channel, especially when it does not incorporate surrounding depressions. Field observations highlighted a number of areas where the riparian planting or fencing had not followed the contour of the land surrounding the channel (**Figure 53**).



**Figure 53.** Example of riparian buffer not following the contour and creating a potential critical source area.

#### Culverts

Blocked culverts or culverts in poor condition locally increase instream sedimentation, streambank instability, and can result in damage to crossings and tracks, especially in high energy reaches. Field observations highlighted a number of situations where culverts were either in poor condition or slowing water flow during higher flows and creating localised erosion and sedimentation (**Figure 54**).





**Figure 54.** Example of a blocked culvert creating localised sedimentation.

In addition to creating localised sedimentation and damage to infrastructure, culverts in poor condition create a barrier to fish passage and prevent access to spawning habitat, especially in smaller tributaries and headwater waterways.

### 9.5.3 Collapsed large exotic trees

Collapsed large trees from the streambanks create localised streambank disturbance, block or divert stream flows resulting in debris build up and localised bank erosion and sedimentation. Field observations identified collapsed large trees (predominantly macrocarpas and pines) on the main branch and some larger tributaries in the mid and lower catchment (**Figure 55**). The collapsed large trees were blocking and diverting flow causing debris build up and localised erosion.



**Figure 55.** *Examples of large trees diverting stream flow and creating localised erosion.*

#### **9.5.4 Hard structures**

Hard structures such as bridges can create a barrier to flow resulting in localised bank and channel erosion, as well as the accumulation of debris (**Figure 56**).



**Figure 56.** Example of hard structure (bridge) with localised erosion.

This is especially so during high flows. Field observations highlighted localised erosion around most bridges, often with evidence of debris (such as large logs) still present and most likely related to the February rainfall events.

An additional field observation was that localised erosion and damage to hard structures (bridges) was greater lower in the catchment, and where these structures were located near channel bends, rather than on straight channel reaches. Placement of hard structures away from channel bends is not always possible but is best avoided where possible.

It is important to note that the Waitotoroa catchment assessment statistical analysis suggested that the resulting erosion caused by culverts and hard structures was not significant compared with other variables such as vegetation type, vegetation height, or whether the waterway was main branch or a tributary.

## 9.6 KEY POINTS

- The Waitotoroa catchment assessment identified 30% of samples had erosion and 17% of samples had vegetation damage.
- The number of samples with erosion or vegetation damage increased from the upper catchment to the lower catchment and was greater for the main branch than for tributaries.
- There was a lower probability of erosion for TRC treated samples than for untreated samples.
- Erosion and vegetation damage were greatest for vegetation heights up to 5 m, then generally decreased.
- Planted vegetation will provide greater protection as the plants establish and reach a height greater than 5 m.





- Erosion was greatest where no woody vegetation was present and likely decreased once vegetation widths were greater than 5 m.
- Increasing the vegetation (buffer) width is likely to provide greater protection against erosion and result in less vegetation damage as plants establish.
- Sedimentation was localised with only 6% of samples having sediment deposition.
- Only 8% of samples had obstructions and debris and was more common in the mid catchment.
- The proportion of samples with obstructions and debris were similar irrespective of whether samples were TRC treated or untreated, and lower for natural vegetation.
- The presence of culverts possibly increased the probability of erosion occurring.
- Fencing was close to 100% for TRC treated samples and more than double that of untreated samples. This highlights the important role the Riparian Management Programme plays in progressing stock exclusion from waterways in the region.
- Field observations identified reaches where a single species had been planted, rather than a mix of plants. Riparian margins consisting entirely of flax were most common, and flax was most commonly uprooted when planted close to the channel.
- Field observations identified critical source areas where riparian planting or fencing had not followed the contour of the land surrounding the channel.
- Field observations highlighted a number of situations where culverts were either in poor condition or slowing water flow during higher flows and creating localised erosion and sedimentation.
- Field observations identified collapsed large trees (predominantly macrocarpas and pines) blocking and diverting flow and causing debris build up and localised erosion.
- Field observations highlighted localised erosion around most bridges, often with evidence of debris (such as large logs) still present and most likely related to the February rainfall events.

## 10 INTERVIEWS

### 10.1 APPROACH

Informal interviews with landowners and TRC staff were conducted to better understand the perspectives of those involved with the TRC Riparian Programme.

The following parties were interviewed:

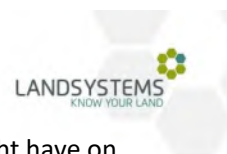
#### Landowners

- Parihaka Pa environmental and policy staff (2)
- Landowners with assessment sites (5)

#### TRC staff

- TRC River Engineer (1)
- TRC Land Management Officers (2)

The interviews helped inform aspects of the review requirements including:



- An understanding of landowner attitudes toward riparian planting and the effect that might have on planting practice.
- The role of riparian planting programmes operated by Council including the reasons for doing it and the benefits that it is expected to generate.
- Current planting practice, and LMO training and understanding of the effect of riparian on stream flows.
- Consideration of how the Council assesses the local environment within which riparian planting is to be undertaken. This should include, for example, how it assesses the level of water flow that might occur within a particular waterway and how provision is made for flood events.
- How the Council is making an allowance for the impacts of climate change in its river management programmes and riparian planting programmes.
- An audit of a sample of riparian plantings in Taranaki, including location and species choice, in relation to how they might affect stream flows; and whether the planting practice has changed over time.

## 10.2 INTERVIEW RESULTS

A summary of landowner and staff comments and perspectives is provided in **Table 5**.

**Table 5.** Summary of landowner and staff comments and perspectives related to the Riparian Management Programme in the Waitotoroa Catchment.

Topic	Comment	Commonality
Riparian Management Programme	Council good to work with and support appreciated	Common landowner comment
	Programme good for environment	Common landowner comment
	Lack of staff follow up following event	Landowner comment
	Disheartening to see plants washed away	Landowner comment
	Loss of plants during floods disincentive	Landowner comment
	Funding not available to some landowners with waterways	Landowner comment
	Planting not all by Programme	Landowner comment
	Need maintenance funding to ensure planting survives	Landowner comment
	Protection of production given more importance than environment aspects	Landowner comment
	Protection of production given more importance than social and cultural aspects	Landowner comment
	Riparian plan implementation takes time	Landowner comment
	Public expectations of time and resources not realistic	Landowner comment
	Use natural regeneration instead of expensive plants (retirement)	Landowner comment
	Contractors required as staff busy	Landowner comment
Fencing	Fencing important for protecting planting and keeping stock out of waterways	This was commonly share by landowners and staff.
	Stock did not stand in waterways	One landowner comment
	High loss of fencing from February event	Common landowner comment





	Use of waratahs instead of full fencing cheaper	Landowner and staff opinion differed
	Difficult to get fencing contractors	Common landowner comment
	Some contractors lacked skills	Landowner comment
	Plants shorting fence – need to understand that plants grow and provide room	Landowner comment
Planting	High loss of plants from February event	Common landowner comment
	Planting too close to waterway	Commonly share by landowners and staff
	Flax planting close to waterway an issue	Commonly share by landowners and staff
	Flax planting best away from waterway	Commonly share by landowners and staff
	Flax planting best on tributaries	Commonly share by landowners and staff.
	Planting tributaries slowed flow	Landowner comment
	Cabbage trees in stream not a problem as regrow	Common landowner comment
	Wrong species near stream edge	Commonly share by landowners and staff
	High loss of plants from February event	Common landowner comment
	Planting tributaries blocks flow	Landowner comment
	Fit riparian buffers to topography	Commonly share by staff and some landowners
	Plant wider buffers	Commonly share by staff and some landowners
	Learnt by trial and error	Landowner comment
Retirement	Retiring land for regeneration works in some locations and cheaper than planting	Landowner comment
Plans	Implementation not always same as plan	Commonly share by landowners and staff
	Some farmers reluctant to give up farmland for planting	Staff comment
River management	Use 'soft engineering' in places	Staff and landowner comment
	Protect riverbed for migratory fish – disturbance at certain times of year – and any time in general. Not removing rocks from the riverbed.	Landowner comment
	Value of long-term landowners' knowledge of river over time, how it has moved.	Landowner comment
Land drainage	Piping of small tributaries increasing peak flows	Staff and landowner comment
	Piping of wet land to improve land	Landowner comment
	Piping reduces stream habitat	Staff and landowner comment
	Piping impractical to remove	Landowner comment
Waterway habitat	Keep tributaries open to retain stream habitat	Staff and landowner comment
	Plant tributaries to shade and for habitat	Staff and landowner comment
	Protect streambed for habitat	Landowner comment
	Tributaries important for Inanga spawning and habitat	Landowner comment



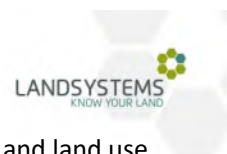
Waterway access	Access to waterways difficult and unsafe in places	Landowner comment
Erosion	Erosion mostly on main branch	Commonly share by landowners and staff
	Erosion downstream of bridges	Common landowner comment
Culverts	Culverts blow out	Common landowner comment
	Culvert maintenance important	Common landowner comment
Large trees	Collapse into waterways and block flow and cause erosion	Common landowner comment
	Damage to infrastructure	Common landowner comment
Catchment	Lack of planting in catchment	Landowner comment
	More catchment planting to reduce peak flows	Landowner comment
	Road drains contributing to flooding on farm	Landowner comment
Education and awareness	Knowledge sharing to increase education and awareness of cultural importance of waterways	Landowner comment
	Improve cultural considerations in river management works	Landowner comment
February event	February event was big and unusual	Commonly share by landowners and staff
	Sediment and debris mainly from slips in conservation area during large events	Landowner comment
National policy	Improve inclusion of Te mana o te Wai	Landowner comment

### 10.3 STAFF TRAINING

Based on interviews with LMOs the following points were noted with regard to knowledge and training:

- The level of experience and background of the LMO team varied. This is a common situation for other councils. The main differences were attributed to the level and location of tertiary training (e.g. different universities) and previous work experience.
- Periodic staff turnover and the loss of experienced staff remains a challenge.
- LMOs have previously attended riparian training courses provided by external experts. Over the past few years such courses have not been available but have recently become available again<sup>19</sup>. However, in-house training and mentoring has been, and continues to be in place.
- In-house training and mentoring includes experienced LMOs providing mentoring to new LMOs through initial oversight of riparian plans, ongoing team meetings to discuss issues, and regular field trips with river engineers around river dynamics and riparian planning.
- For hill country LMOs, formal land use capability training for is provided by experienced external providers. This includes initial and ongoing training to individual hill country LMOs on how to assess land use capability and map a farm.

<sup>19</sup> <https://niwa.co.nz/news/demand-grows-for-niwas-riparian-management-training>



- There is potential to tailor the training for the riparian LMOs to incorporate the landscape and land use capability concepts provided to the hill country LMOs.
- Overall there was good knowledge of the fluvial systems and river dynamics of the catchments in the region, the riparian related issues within catchments, and erosion 'hotspots'.

#### 10.4 KEY POINTS

- Landowners have a good appreciation of the value of the Riparian Management Programme.
- Landowners commented that the Council are good to work with and their support is appreciated.
- Landowner knowledge of the value of riparian planting is good but their understanding of the benefits for stream ecology is mixed.
- LMOs have good riparian management knowledge, supported by training and mentoring.

### 11 CONCLUSIONS

The February rainfall event was unique in that rainfall intensity occurred across the catchment evenly, rather than rainfall intensity decreasing from the upper catchment to the lower catchment. This resulted in higher flows.

Based on long term records, the rainfall event was estimated to be a 1 in 50 to greater than a 1 in 100 year event. However, climate change predictions for the region and preliminary modelling that incorporated the event suggest that such rainfall events will become more common over the long term.

An event of the magnitude of the February rainfall event produces flows that will cause erosion and damage irrespective of whether there is or isn't riparian protection in place.

The greatest benefit of riparian protection (as provided by TRC's Riparian Management Programme) is during more frequent, moderate sized (1 in 10 to 1 in 20 year events) rainfall events where flows generally remain within channel banks.

Associated benefits of the TRC treated areas include fencing which prevents stock access, assisting with water quality improvements and meeting national policy and rule requirements.

Observed erosion and vegetation damage was greater in the mid and lower Waitotoroa catchment waterways.

The least erosion occurred under well-established vegetation, (i.e. primarily under natural vegetation).

There was some evidence to suggest TRC treatment areas experienced greater riparian vegetation damage than untreated reaches. This was most likely because of the greater number of younger plants in the TRC treated reaches.

TRC's riparian planning (including the development and implementation of riparian management plans), through the Taranaki Riparian Management Programme is essential for meeting the national requirements set out in current national freshwater management policy.

Implementation of property specific riparian management plan works, primarily the selection and placement of plants, needs to be improved to help reduce actual and perceived negative impacts such as plant loss and



streambank erosion and in-stream sedimentation. This is most important given the likely increased frequency of larger storm events.

Landowner interviews highlighted that in general there was a high level of satisfaction with the Riparian Management Programme, the interaction with LMOs and the support provided by Taranaki Regional Council.

Several landowners indicated frustration with losing plants during events and seeing their hard work and investment lost. This is a major current disincentive to continuing planting, despite the incentives provided by council.

Based on the field observations in the Waitotoroa catchment, implementation did not always align with the guidance provided by Riparian management plans.

Shorter return periods for larger flood events due to climate change is likely to increase the occurrence of channel erosion and damage plantings, especially if these events occur where plants are less than five years old.

The lack of an assessment of the Waitotoroa catchment prior to the February 2022 events makes it difficult to draw clear conclusions regarding the full extent of erosion and damage, and whether TRC treated areas exacerbated or reduced the extent of erosion and damage.

However, reduced erosion and damage observed for reaches with well-established riparian vegetation (primarily provided by the samples with natural vegetation), and the statistical analysis suggested that once established TRC treatment with planting will reduce erosion and damage for up to moderate flow events.

A priority going forward is the fencing and planting of tributaries to increase the buffering capacity of peak flows and provide greatest benefits to water quality and stream ecological habitat. Additionally, these areas are less likely to be impacted by peak flows during large events.

## 12 RECOMMENDATIONS

### 12.1 RIPARIAN MANAGEMENT PLANNING

Riparian Management Plans are generally only provided for farmers, or landowners with rural productive land. This means that assistance for riparian management is not available for all landowners with waterways present on their land. Consideration could be given to expand the provision of Riparian Management Plans to all rural land owners that have waterways (and waterbodies) present. This would provide improved and continuous riparian management along all waterway reaches, with likely reduced bank erosion and vegetation damage.

### 12.2 CLIMATE CHANGE CONSIDERATIONS

The likely increased frequency of larger storm events, and associated flows needs to be considered as part of the Riparian Management Programme.



The guidance provided by TRC for plant selection and placement on waterways is sufficient to contribute to mitigation against future impacts of climate change, however, the implementation of the property specific farm plans could be improved.

Implementation of property specific riparian management plan works, primarily the selection and placement of plants and planting distance from waterways can be improved to minimise plant loss and streambank erosion.

Considerations could include wider riparian buffers to better follow the topography, and the use of smaller 'softer' plants such as sedges (rather than flax and large woody species) closer to the waterway, especially on the more active reaches of larger waterways.

On smaller tributaries, shading of the water to minimise increased water temperature will become increasingly important with climate change. The comparatively lower flow velocities and narrower channels widths associated with tributaries means that flax can be used and is likely to provide sufficient bank stability and shading, with lower ongoing maintenance requirements.

### 12.3 POLICY ALIGNMENT

Recent changes to national policy have led to the need for adjustments to TRC's implementation of the Riparian Management Programme. A general review of potential gaps and misalignments between national freshwater policy and TRC's implantation of the policy through its Riparian Management Plan is recommended. My understanding this that this process is underway. Two initial points of focus are listed below:

1. Integration of Te Mana o te Wai principles, including increasing landowner and TRC staff awareness and knowledge.
2. Re-assessment of timeframes for policy implementation to ensure the current Riparian Management Programme (including supporting resources) is adequate to meet policy requirements across the whole region.

### 12.4 MAIN BRANCH TREATMENT

- Results from the Waitotoroa catchment stream stability assessment indicated that wider riparian buffers with taller mixed species (similar to that of natural vegetation) provided the greatest protection against erosion.
- Planting near the waterway, especially in high energy reaches should be avoided to minimise vegetation damage and loss.
- Planting and fencing should follow the contour of the surrounding land to minimise critical source areas near the waterway.
- Straightening and realignment of channels should be avoided to minimise high energy reaches.
- Stabilisation of eroded streambanks using 'soft' engineering techniques is favoured.



## 12.5 TRIBUTARY TREATMENT

- Planting and fencing of smaller tributaries<sup>20</sup> should be encouraged to enhance stream ecology.
- Planting and fencing should follow the contour of the surrounding land to minimise critical source areas near the waterway.

## 12.6 OTHER CONSIDERATIONS

- Regular maintenance of culverts and replacement of undersized culverts.
- Retirement of wetland areas and retention of open tributary waterways.
- Placement of large hard structure (such as bridges) on stable reaches, away from high energy reaches.

## 12.7 SUGGESTED TRAINING RESOURCES

To ensure LMO skills are current and consistent across the team, LMOs that require additional skills or that are new to the role will benefit from training courses and resources. Training is best considered on a case by case basis. NIWA provides the following course and resources:

NIWA Riparian Management training course:

<https://niwa.co.nz/news/demand-grows-for-niwas-riparian-management-training>

NIWA Riparian Buffer Design Guide:

<https://niwa.co.nz/sites/niwa.co.nz/files/Riparian%20Guidelines%20WEB.pdf>

NIWA restoration tools:

<https://niwa.co.nz/freshwater/management-tools/restoration-tools>

NIWA Riparian Management Classification (RMC):

<https://niwa.co.nz/our-science/freshwater/tools/restoration-tools/riparian-management-classification>

## 12.8 INCREASING AWARENESS AND KNOWLEDGE

The interviews undertaken as part of this review indicated that although there is a good general understanding of the benefits associated with the Riparian Management Programme, there is a lack of understanding around stream ecology, especially those relating to land drainage and stream ecology, as well as new concepts incorporated in the National Policy Statement for Freshwater Management 2020 (NPS-FM).

Increased incorporation of these components into the Riparian Management Programme, through riparian management plans, in conjunction with focussed field days or workshops could be a way of increasing landowner awareness and understanding.

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<sup>20</sup> Based on NIWA assessment of stream order proportions for waterways in the Taranaki region. Stream orders 1 and 2 collectively total 75.6% of waterway length in the Taranaki region.

## Public Excluded Recommendations - Operations and Regulatory Committee

In accordance with section 48(1) of the *Local Government Official Information and Meetings Act 1987*, resolves that the public is excluded from the following part of the proceedings of the Executive Audit and Risk Meeting on Tuesday 13 February 2023 for the following reason/s:

Item 12 – Confirmation of Public Excluded Operations and Regulatory Minutes – 14 March 2023

The matter to be considered while the public is excluded, the reason for passing this resolution in relation to the matter, and the specific grounds under section 48(1) of the *Local Government Official Information and Meetings Act 1987* are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
Prosecution- Under the Resource Management (National Environmental Standards [for Air Quality]) Regulations 2004	<p>To protect the privacy of natural persons, including that of deceased natural persons.</p> <p>To maintain legal professional privilege.</p> <p>Making the information available 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.</p>	<p>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 for which good reason for withholding would exist under section 7 (2) (h) and (2) (i) of the <i>Local Government Official Information and Meetings Act 1987</i>.</p>

## AGENDA AUTHORISATION

Agenda for the Operations and Regulatory Committee meeting held on Wednesday  
26 April 2023

Confirmed:



15 Apr, 2023 8:21:05 AM GMT+12

A J Matthews  
**Director-Environment Quality**

Approved:



14 Apr, 2023 2:59:09 PM GMT+12

S J Ruru  
**Chief Executive**