

#### If calling, please ask for Democratic Services

### **Wairarapa Committee**

Tuesday 28 May 2024, 10.00am

Committee Room, Greater Wellington Regional Council, 34 Chapel St, Masterton

**Quorum:** four members, including two regional councillors

#### **Members**

Adrienne Staples, Councillor (Chair)

Gary Caffell, Mayor

Masterton District Council

Martin Connelly, Mayor

South Wairarapa District Council

Penny Gaylor, Councillor

Greater Wellington Regional Council

Hon. Ron Mark, Mayor

Carterton District Council

Daran Ponter, Councillor

Greater Wellington Regional Council

Greater Wellington Regional Council

Rangitāne ō Wairarapa

Recommendations in reports are not to be construed as Council policy until adopted by Council

#### **Wairarapa Committee**

#### 1 Purpose

Consider areas and matters of strategic importance to the Wairarapa, and recommend to Council on these matters.

#### 2 Specific responsibilities

- 2.1 Apply Council's Te Tiriti o Waitangi principles when conducting the Committee's business and making decisions.
- 2.2 The areas to consider and recommend on to Council include, but are not limited to:
  - a Flood protection
  - b Land management
  - c Biosecurity
  - d Biodiversity
  - e Climate
  - f Public transport
  - g Natural resource management
  - h Broader areas of common interest to the territorial authorities and Council.
- 2.3 Consider potential arrangements for a catchment-based governance approach for the Wairarapa, and recommend to Council, as appropriate.

#### 3 Members

- 3.1 The Councillor elected by the Wairarapa constituency.
- 3.2 Two other Councillors, appointed by Council.
- 3.3 Three other members, appointed by Council as follows:
  - a The Mayor of Carterton District Council
  - b The Mayor of Masterton District Council
  - c The Mayor of South Wairarapa District Council.
- 3.4 Two other members, appointed by Council for each person's skills, attributes or knowledge that will assist the work of the Committee, being:
  - a One member, nominated by Ngāti Kahungunu ki Wairarapa
  - b One member, nominated by Rangitāne ō Wairarapa.

#### 4 Alternate members

- 4.1 For the members in sections 3.1 and 3.2, Council may nominate a pool of up to three alternate Councillors for appointment by Council. If one of those members is unable to attend a meeting any person from this pool may sit at the table, speak and vote in their place.
- 4.2 Each territorial authority in section 3.3 may nominate an alternate elected member for appointment by Council. If an appointed member is unable to attend a meeting their alternate member may sit at the table, speak and vote in their place.
- 4.3 Each iwi authority in section 3.4 may nominate an alternate member for appointment by Council. If an appointed member is unable to attend a meeting their alternate member may sit at the table, speak and vote in their place.

#### 5 Quorum

Four members, including two Councillors.

#### 6 Voting entitlement

- 6.1 All members have equal speaking and voting rights.
- 6.2 Council's Standing Orders apply to the Committee; except that the Chair, in the case of an equality of votes, does not have a casting vote (and therefore the motion is defeated, and the status quo is preserved).

#### 7 Servicing

The Committee is serviced by Greater Wellington.

#### 8 Committee consideration

- 8.1 Matters of strategic importance to the Wairarapa constituency shall first be referred (including during the development of proposed Greater Wellington plans and policies) to the Wairarapa Committee or its members for their consideration.
- 8.2 Proposals developed by Wairarapa-focused advisory bodies formally established by Council shall be considered by the Committee for direct recommendation to Council for decision.

#### 9 Council's decisions on the Committee's recommendations

- 9.1 Council's decisions on the Committee's recommendations are reported to the Committee.
- 9.2 Where Council makes any decision that is materially different from the Committee's recommendation, Council's report to the Committee will set out the reason(s) for that decision.

#### 10 Remuneration and expenses

- 10.1 The expenses of the elected members shall be met by the council they represent.
- 10.2 Non-elected members (who are not otherwise being remunerated) may claim Greater Wellington's standard daily meeting attendance allowances and expenses.

#### 11 Meeting frequency

The Committee shall meet six times each year, with additional meetings as required.

### **Wairarapa Committee**

Tuesday 28 May 2024, 10.00am

Committee Room, Greater Wellington Regional Council, 34 Chapel Street, Masterton

#### **Public Business**

No.	Item	Report	Page
1.	Apologies		
2.	Conflict of interest declarations		
3.	Public participation		
4.	Confirmation of the Public minutes of the Wairarapa Committee meeting on Tuesday 9 April 2024	24.168	6
5.	Government policy update	24.222	9
6.	Update on the Wairarapa Moana Wetlands Project and review of the Lower Wairarapa Valley Development Scheme	24.219	42
7.	Wairarapa flood risk management update	24.217	62
8.	Ruamāhanga Whaitua Implementation Programme progress report and update on Wairarapa Coast Whaitua	24.215	77
9.	Wairarapa Water Resilience Strategy update	24.216	111
10.	Release of Wairarapa SW Carriage Rough Ride and Vibration Review	24.224	117
11.	Public transport update	24.228	157



Please note these minutes remain unconfirmed until the Wairarapa Committee meeting on 28 May 2024.

Report 24.168

# Public minutes of the Wairarapa Committee meeting on Tuesday 9 April 2024

Committee Room, Greater Wellington Regional Council | Te Pane Matua Taiao 34 Chapel Street, Masterton at 10.05am.

#### **Members Present**

Councillor Staples (Chair) Greater Wellington Regional Council

Mayor Caffell Masterton District Council
Amber Craig Rangitāne ō Wairarapa

Councillor Gaylor Greater Wellington Regional Council

Hon. Mayor Mark (from 10.27am) Carterton District Council

Acting Mayor Sadler-Futter South Wairarapa District Council

Councillor Gaylor and Acting Mayor Sadler-Futter attended the meeting remotely via Microsoft Teams and counted for the purposes of quorum in accordance with clause 25B of Schedule 7 to the Local Government Act 2002.

#### Karakia timatanga

The Committee Chair opened the meeting with a karakia timatanga.

#### **Public Business**

#### 1 Apologies

Moved: Mayor Caffell / Amber Craig

That the Committee accepts the apology for absence from Councillor Ponter.

The motion was carried.

#### 2 Declarations of conflicts of interest

There were no conflicts of interests declared at this item.

#### 3 Public participation

There was no public participation.

### 4 Confirmation of the Public minutes of the Wairarapa Committee meeting on 20 February 2024 – Report 24.79

Moved: Mayor Caffell / Cr Staples

That the Committee confirms the Public minutes of the Wairarapa Committee meeting on 20 February 2024 – Report 24.79.

The motion was carried.

**Noted:** Amber Craig requested her abstention be recorded.

#### 5 Greater Wellington v Page and Crosby Judgement – Report 24.148 [For Information]

Fathima Iftikar, Director Strategy, Policy and Regulation, David Hipkins, Director Knowledge and Insights, and Shaun Andrewartha, Manager Environmental Regulation, spoke to the report.

**Noted:** The Committee requested staff engage with mana whenua regarding the process for wetland identification.

Hon. Mayor Mark arrived at 10.27am during the above item.

#### 6 **Drought Declaration for the Wairarapa – Report 24.158** [For Information]

Tash Styles, Catchment Manager – Wairarapa Coast and Nicola Patrick, Director, Catchment, spoke to the report.

#### 7 Daleton Nursery Development – Report 24.101 [For Information]

Scott Ihaka, Project Manager – Daleton Nursery, spoke to the report.

**Noted**: Hon. Mayor Mark declared a conflict of interest in regard to item 7 – Daleton Nursery Development – Report 24.101.

#### **8** Flood Risk Management update – Report 25.149 [For Information]

Hamish Fenwick, Team Leader Flood Operations Delivery, spoke to the report.

#### 9 **Public Transport Update – Report 24.147** [For Information]

Samantha Gain, Group Manager Metlink and David Mawson, Manager Rail Network Delivery, spoke to the report.

### Karakia whakamutunga

The Committee Chair closed the meeting with a karakia whakamutunga.
The public meeting closed at 11.20am.
Councillor A Staples
Chair
Date:

Wairarapa Committee 28 May 2024 Report 24.222



#### For Information

#### **GOVERNMENT POLICY UPDATE**

#### Te take mō te pūrongo Purpose

1. To update the Wairarapa Committee of the Government's policy direction, focusing on resource management, now that the first 100 days period has been completed and the next period has begun.

#### Te tāhū kōrero Background

- 2. A report was presented to Council on 11 April 2024 (Government Policy Statement Post 100 days update Report 24.112) updating progress with the Government's programme now that the first 100-day period has been completed (**Attachment 1**).
- 3. At the same time, the regional regulatory framework still stands, as do any changes that have come through the Natural Resources Plan process (such as Certified Farm Environment Plans in priority catchments). This also includes a commitment to continue to implement direction from whaitua committees (such as the Regional Policy Change 1 and Plan Change 1 to the Natural Resources Plan).

#### Te tātaritanga Analysis

#### The direction of change

- 4. In summary, the 100-day update included:
  - Release of Government Policy Statement on Land Transport
  - Repeal of the Natural and Built Environment Act 2023 (NBEA) and Spatial Planning Act 2023 (SPA)
  - Indicated changes to the planning framework including upcoming reviews of the National Policy Statement – Freshwater Management (NPS-FM), National Policy Statement – Indigenous Biodiversity (NPS-IB), and National Policy Statement – Highly Productive Land (NPS-HPL)
  - Introduction of a Fast-track Approvals Bill
  - Central Government's withdrawal from the Let's Get Wellington Moving programme (LGWM)

- The Minister of Transport's removal of the requirement for Road Controlling Authorities (RCAs) and Regional Transport Committees (RTCs) to develop speed management plans
- Road User Charges (Light Electric RUC Vehicles) Amendment Bill introduced.
- 5. The Minister for RMA Reform gave a speech in March to the planning profession on resource management (Speech to the New Zealand Planning Institute, <a href="https://www.beehive.govt.nz/speech/speech-new-zealand-planning-institute">https://www.beehive.govt.nz/speech/speech-new-zealand-planning-institute</a>). The Minister outlined resource management reform as having a number of phases:
  - Phase 1: Repeal the NBEA and SPA (complete)
  - Phase 2: Introduce Fast-track Approvals Bill (complete)
  - Phase 2B: Make targeted changes to the existing Resource Management Act 1991 (RMA)
  - Phase 3: Replace the RMA by end of 2025.
- 6. A letter from the Minister (dated 30 April) has signalled the specific areas to be amended as part of Phase 2B:
  - "National Policy Statement for Freshwater Management (NPS-FM): make it clear that while NPS-FM is being reviewed and replaced, resource consent applicants no longer need to demonstrate their proposed activities follow the Te Mana o te Wai hierarchy of obligations.
  - Farm regulations: amend stock exclusion regulations in relation to sloped land, repeal intensive winter grazing regulations.
  - **Coal mining:** align the consenting pathway for coal mining with the pathway for other mining activities in the National Policy Statement for Indigenous Biodiversity (NPS-IB), NPS-FM, and the National Environmental Standards for Freshwater. This will give the industry certainty and confidence, and when the bill is enacted, a wider range of consent applications for coal mines will be able to be made.
  - **Significant Natural Areas**: suspend the NPS-IB requirement for councils to identify new significant natural areas for three years.
  - **National direction processes:** speed up the process to make or amend national direction, which is currently unnecessarily onerous, costly and takes too long."
- 7. Associate Environment Minister, Hon Andrew Hoggard, has also recently indicated changes to the farm planning system to ensure farm plans are more cost-effective and practical for farmers (see <a href="https://www.beehive.govt.nz/release/freshwater-farm-plan-systems-be-improved">https://www.beehive.govt.nz/release/freshwater-farm-plan-systems-be-improved</a>).
- 8. **Attachment 2** sets out in more detail how Greater Wellington will be responding to these changes.

#### The regional resource management framework

9. It is important to note that, although the national direction picture is shifting, the regional resource management regulatory framework (through the Regional Policy Statement and Natural Resources Plan, RPS and NRP) still stands. Changing national direction is a constant that we always have to deal with (for example, the National Policy

- Statement for Freshwater Management has been updated / rewritten approximately every three years).
- 10. The regional framework has been developed from values expressed by mana whenua / tangata whenua and the regional community. Both the RPS and NRP have been through a period of submissions, public hearings and appeals. These processes are completely transparent and show a consistent direction of travel since 2013.
- 11. The whaitua committee approach was set up in 2014 as Greater Wellington's response to national direction calling for a catchment community led approach. The value in whaitua goes beyond the instruments that inspired it; the process itself facilitates the articulation of values around land and water across mana whenua / tangata whenua, the local community and local councils. It is a blueprint for a sustainable relationship between people, land and water (tangata, whenua and the wai). Te Mana o Te Wai is a further way to express this relationship.
- 12. Work continues on Plan Change 1 to the NRP and Change 1 to the RPS. These processes are already on a statutory timeline and implement the regulatory elements of completed whaitua processes. Implementation of the non-regulatory components is ongoing and now forms the basis of our business as usual work programmes.

#### Ngā tūāoma e whai ake nei Next steps

- 13. Attachment 3 to the 11 April 2024 Council report (within Attachment 1 to this report) includes information on the Government's plans for the next 100 days. We will provide an update on this once this period has been completed.
- 14. A report will the taken to Council to confirm the timing of plan changes going forward to complete implement of the NPS-FM. This is currently scheduled for 27 June 2024.

#### Ngā āpitihanga Attachment/s

Number	Title			
1	Copy of Report 24.112 and 3 attachments from 11 April 2024 Council			
	meeting.			
2	Table of resource management changes.			

### Ngā kaiwaitohu Signatory/Signatories

Writer/s	Matt Hickman - Principal Advisor, Strategy, Policy & Regulation   Rōpū Taiao - Environment Group
Approver/s	Fathima Iftikar - Hautū Rautaki, Kaupapa Here me ngā Waeture   Director Strategy, Policy and Regulation   Rōpū Taiao - Environment Group
	Lian Butcher - Kaiwhakahaere Matua, Taiao   General Manager, Environment

#### He whakarāpopoto i ngā huritaonga Summary of considerations

#### Fit with Council's roles or with Committee's terms of reference

A shift in central government policy direction impacts directly on Council's roles, responsibilities and work programmes. Many of these shifts will directly impact resource management in the Wairarapa.

#### Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Changing priorities and funding arrangements for central government will impact on Council's Long-Term Plan and other key planning documents.

#### Internal consultation

This original report has been prepared by a number of teams across Council including Strategy, Policy & Regulation, Metlink Policy, Democratic Services, Te Hunga Whiriwhiri, Regional Transport.

#### Risks and impacts - legal / health and safety etc.

There may be legal risks to Council as policy and legislation changes. Further detail will be provided when known.

Council 4 April 2024 Report 24.112



#### For Information

#### **GOVERNMENT POLICY STATEMENT – POST 100 DAYS UPDATE**

#### Te take mō te pūrongo Purpose

1. To update Council on the Government's policy direction, now that the first 100-day period has been completed.

#### Te tāhū kōrero Background

- 2. Officers provided an update to Council on 11 December 2024 on the direction of the new government (refer to Government's Policy Direction Understanding what it means for Greater Wellington Report 23.642).
- 3. This report highlights key areas of change now that the first 100-day period has been completed.

#### Te tātaritanga Analysis

- 4. **Attachment 1** sets out a table of policy direction that is relevant to Greater Wellington and how this has changed after the first 100-days of the Government. Council has already been briefed on many of the 'big-ticket' items.
- 5. **Attachment 2** sets out a timeline from the Government for resource management reform (from a pro-actively released Cabinet paper).
- 6. In summary, this 100-day update includes:
  - a Release of Government Policy Statement on Land Transport
  - b Repeal of the Natural and Built Environment Act 2023 (NBEA) and Spatial Planning Act 2023 (SPA)
  - c Indicated changes to the planning framework including upcoming reviews of the National Policy Statement Freshwater Management (NPS-FM), National Policy Statement Indigenous Biodiversity (NPS-IB), and National Policy Statement Highly Productive Land (NPS-HPL)
  - d Introduction of a Fast-track Approvals Bill
  - e Central Government's withdrawal from the Let's Get Wellington Moving programme (LGWM)

- f The Minister of Transport's removal of the requirement for Road Controlling Authorities (RCAs) and Regional Transport Committees (RTCs) to develop speed management plans
- g Road User Charges (Light Electric RUC Vehicles) Amendment Bill introduced.

#### Resource Management

- 7. Looking forward, the Minister for RMA Reform recently gave a speech to the planning profession on resource management (see Speech to the New Zealand Planning Institute | Beehive.govt.nz¹), indicating two broad objectives to the Government's work programme:
  - "making it easier to get things done by unlocking development capacity for housing and business growth, enabling delivery of high-quality infrastructure for the future, including doubling renewable energy, and enabling primary sector growth and development (including aquaculture, forestry, pastoral, horticulture, and mining)."
  - b "to safeguard the environment and human health, adapt to the effects of climate change, improve regulatory quality in the resource management system, and uphold Treaty of Waitangi settlements and other related arrangements."
- 8. The Minister outlined resource management reform as having a number of phases.

#### Phase 1:

9. Repeal the NBEA and SPA (complete).

#### Phase 2:

10. Introduce Fast-track Approvals Bill (complete).

#### Phase 2B:

- 11. Make targeted changes to the existing Resource Management Act 1991 (RMA)
  - a First set of changes to be introduced by May 2024:
    - Clarify the application of the hierarchy of obligations in the National Policy Statement (NPS) for Freshwater Management to resource consenting
    - ii extend the duration of marine farm consents
    - iii cease the implementation of new Significant Natural Areas for three years to enable a thorough review of their operation.
  - b Second set of changes by end of 2024:
    - i make the Medium Density Residential Standards optional and require councils to ratify their use
    - require councils to zone 30 years of growth, and strengthen the National Policy Statement on Urban Development, particularly around mixed-use zoning

https://www.beehive.govt.nz/speech/speech-new-zealand-planning-institute

- iii Enable more renewable energy (as part of 'Electrify New Zealand' policy)
- iv All other work on national direction combined into a single review and engagement process for decision-making and engagement (including national policy statements).

#### Phase 3

- 12. Replace the RMA by end of 2025.
- 13. The shifting of priorities for central government expenditure and the introduction of new policies with financial dimensions will influence Greater Wellington's budgetary position.

#### **Transport**

14. The draft Government Policy Statement (GPS) – Land Transport indicates a significant change in direction for land-transport with an overarching strategic focus on economic growth and productivity. While this GPS signals ongoing support for public transport in the Wellington Region, including support for important major public transport projects, funding in the two public transport activity classes has reduced in real terms. In addition, the draft GPS signals the need to increase farebox recovery and revenue generated from third party sources (primarily, it is understood, from passengers).

#### **Public Transport**

- 15. As this report is being finalised, New Zealand Transport Agency Waka Kotahi (NZTA) has commenced consulting on fares and pricing requirements for public transport authorities in line with the farebox recovery positions outlined in the draft GPS.
- 16. Officers have yet to determine how changes to fare-box recovery rates signalled through the new NZTA fares and pricing workstream will specifically impact or influence Wellington Region fare settings in general and any current services (e.g. the on-demand trial service in Tawa) which are not currently funded in the National Land Transport Fund (NLTF).
- 17. It is clear, however, that changes to the way SuperGold concession funding is accounted for nationally will impact on how farebox settings are calculated and considered by the Crown. Under the new draft fares and pricing requirements, all sources of Crown funding are to be counted as part of the public share of operating costs along with local and NLTF funding sources.
- 18. As SuperGold concession funding is currently accounted for by the Crown as 'fare revenue', the financial policy change signalled by NZTA will mean Greater Wellington will need to adjust how fare revenue sources are represented and, therefore, how future Crown funding is off-set against any nationally mandated expectation relating to the proportion of fares expected to be comprised from direct passenger-generated revenues.
- Officers will bring a report to a future Council meeting (date to be confirmed) on policy or requirements in NZTA's fares and pricing workstream requiring Council consideration or decision-making.

#### Water Infrastructure

- 20. Greater Wellington will continue to include Bulk Water Supply in the Long-Term Plan and Financial Strategy. However, the increasing cost pressures of delivering water will be an affordability challenge for local government in the Region and is likely to require government funding assistance or a change to the ownership and funding mechanisms at some point in the near future.
- 21. Regional/City Deals may offer a funding route to address regional infrastructure funding shortfalls but would need to be negotiated with the government. At this time, the shape and structure of regional/city deals are uncertain. The Wellington Regional Leadership Committee is facilitating initial thinking on a regional deal.

#### Ngā Take e hāngai ana te iwi Māori Implications for Māori

- 22. The new policy direction will have major impacts on our mana whenua partners in the Wellington Region and Māori in general.
- 23. The National Iwi Chairs Forum (NICF) was held between 31 January 2 February 2024 at Waitangi and recommendations were agreed by NICF, which include to be in opposition to the Crown's policies and legislation that impact on Te Tiriti o Waitangi rights of whānau, hapū and iwi within each rohe, including the protection of rights guaranteed in each Treaty of Waitangi settlement.
- 24. The Fast-track Approvals Bill has limited recognition of Te Tiriti which undermines the interests of Māori, with high concern for iwi yet to settle with the Crown. Furthermore, the concerns from our mana whenua partners regarding the Bill are as follows:
  - a Unhappy that the decision power sits at Ministerial level
  - b Significantly reduces their involvement in the decision-making process, which negatively impacts mana whenua long-term management plans, aspirations, putting them decades behind in the current achievements they have made to date
  - c Economic development will overpower the needs of the environment for a flourishing te taiao
  - d Unsettled mana whenua partners are to be disadvantaged more than those that have settlement agreements i.e Te Ātiawa ki Whakarongotai and Raukawa ki te Tonga (who have delegated specific responsibilities to Ngā Hapū o Ōtaki) and have not yet gone through redress.
- 25. Further Fast-track Approvals Bill implications that may impact on iwi and hapū are as follows:
  - Commitment to upholding Te Tiriti is uncertain
  - b Consultation with iwi/hapū is lacking for non-settled iwi, and likely to be too short and resource intensive for those who are consulted
  - c Need stronger assurance of expert panel's Tiriti, tikanga and mātauranga expertise
  - d Panel consultation timeframe with Māori-focused Ministers is short.

- 26. With further consideration, the Government's approach of working with Post Settlement Governance Entities (PSGEs) is likely to be problematic for all our mana whenua partners. Although Ngāti Toa Rangatira and Taranaki Whānui as their PSGEs are the same entities we partner with, there may be lack of consultation at a hapū level. The entities we partner with in the Wairarapa are not PSGEs. And it is unclear what this will mean for Te Ātiawa ki Whakarongotai and Ngā Hapū ō Ōtaki who are not yet settled with the Crown and have overlapping rohē with Muaūpoko which has a PSGE.
- 27. Changes to Te Mana o Te Wai (TMoTW) hierarchy and the removal of consideration of TMoTW for consent decisions (including those under fast track) will result in poorer outcomes for freshwater which may not align with commitments in Treaty Settlements and structures that flow from these Settlements. Whilst the TMoTW hierarchy is being removed from the consenting considerations, the Regional Policy Statement (RPS) Change 1 currently has three mana whenua expressions of what TMoTW means to respective mana whenua. Those expressions, even though currently still proposed, will need to be considered in some form alongside the operative RPS.
- 28. On 4 April 2024 the Minister of Local Government advised that the Government will introduce a Bill in the next few months to restore binding polls on the establishment of Māori wards and constituencies. Under the proposed legislation the Council will have the options of A: resolving this year to rescind its decision to create a Māori Constituency by council resolution, to take effect at the 2025 local elections, or B: holding a binding poll on the question of Māori Constituencies at the 2025 local elections, to take effect at the 2028 local elections.

#### Te huritao ki te huringa o te āhuarangi Consideration of climate change

- 29. The Government has removed the previous focus on climate change from its draft GPS Land Transport. It has signalled an overarching strategic priority of economic growth and productivity with a focus on roading. The draft GPS indicates that the Government will be looking to a strong and stable Emissions Trading Scheme (ETS) and measures to be developed as part of the second Emissions Reduction Plan (ERP2) to reduce emissions. The descriptions of the proposed activity classes in the GPS, coupled with reductions from previously signalled investments in public transport and active modes restrict the ability of local bodies to seek multi-modal solutions which would have assisted in reducing transport-related emissions through mode shift. These draft proposals will make it more challenging to achieve the Region's and national emissions targets.
- 30. The purpose of the proposed Fast-track Approvals Bill is to expedite the approval of projects deemed to have significant regional or national benefits. It overrides consent processes under the RMA, but also a wide range of authorisations under other legislation including the Wildlife Act 1953, the Conservation Act 1987, and the Reserves Act 1977.
- 31. The purpose of the bill has primacy with no limiting environmental parameters (in contrast to the Resource Management Act 1991). Unlike the fast-track consenting under previous legislation, Ministers (of Infrastructure, Transport and Regional Development) have ultimate decision-making power over approvals and conditions.

- Note that because the Schedules listing projects eligible for the fast-track process were not introduced with the Bill, there will be no opportunity for public scrutiny or expert input as part of the Select Committee process.
- 32. Greater Wellington will be making a submission on the Bill (Report 24.160), as discussed at the Council workshop on 28 March 2024. Submissions are due on 19 April 2024.
- 33. As noted in the previous report, a number of policy measures will impact on the ability of the Region to reduce carbon emissions. This includes making Medium Density Residential Standards optional for councils, the repeal of the Spatial Planning Act 2023, reducing funding for building cycleways, cancellation of Let's Get Wellington Moving and increased priority for new Roads of National Significance.

#### Ngā tūāoma e whai ake nei Next steps

- 34. Further advice will be provided to Council as the details continue to emerge for both the detailed policy and the process around engagement.
- 35. The Government has published its second 100 days plan which contains 36 actions. These are reproduced in **Attachment 3**. Officers will provide a further update when the next 100-day period has been completed.

#### Ngā āpitihanga Attachments

Number	Title		
Table of Government Policy Direction relevant to Greater Wellington			
2	Government's RM reform timeline		
3 Coalition Government's Action Plan for New Zealand: 1 April – 30 June			

#### Ngā kaiwaitohu Signatories

Writers	Matt Hickman – Principal Advisor, Strategy, Policy & Regulation				
	Emmet McElhatton – Manager, Policy Metlink				
	Grant Fletcher – Head of Regional Transport				
	Ana Nicholls – Director, Mātauranga Taiao				
	Francis Ryan - Head of Governance and Democracy				
	Catherine Knight – Principal Strategic Advisor, Urban Development				
	Natasha Hayes – Senior Strategic Advisor, Regional Transport				
Approvers	Fathima Iftikar – Director – Strategy, Policy and Regulation, Environment Group				
	Luke Troy - Group Manager Strategy   Kaiwhakahaere Matua Rautaki				

#### He whakarāpopoto i ngā huritaonga Summary of considerations

#### Fit with Council's roles or with Committee's terms of reference

A shift in central government policy direction impacts directly on Council's roles, responsibilities and work programmes.

#### Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Changing priorities and funding arrangements for central government will impact on Council's Long Term Plan and other key planning documents.

#### Internal consultation

This report has been prepared by a number of teams across Council including Strategy, Policy & Regulation, Metlink Policy, Democratic Services, Te Hunga Whiriwhiri, Regional Transport.

#### Risks and impacts - legal / health and safety etc.

There may be legal risks to Council as policy and legislation changes. Further detail will be provided when known.

Theme	Specific direction (taken from 100-day plan and coalition agreements, with some double-ups to show difference in wording in some cases)	Impact on GW's work programme	Response required from GW	100-day update
Resilience, response & recovery	Meet with Councils and communities to establish regional requirements for recovery from Cyclone Gabrielle and other recent major flooding events.	Limited impact on Wairarapa area		
	Make any additional Orders in Council needed to remove red tape to speed up cyclone and flood recovery efforts.		Support national recovery agency role to support regional/local roles	
Regulatory reform	New ministerial portfolio for regulation including introduction of proposed Regulatory Standards Act and establishment of new regulations government department.	Cross-cutting impacts to be determined across GW functions	<ul> <li>Ongoing watching brief</li> <li>Advocate reform of, from a public transport perspective, current regulatory measures that may be impeding public transport planning and operations</li> <li>Advocate for reform to Regional Land Transport planning processes to speed delivery of programmes of work.</li> </ul>	New Ministry of Regulation established 1 March.
Regional transport and public transport	Begin work on a draft new Government Policy Statement on Transport (GPS) reflecting new Roads of National Significance and public transport projects.	New Roads of National Significance (RoNS) in the Wellington region:  1. Petone to Grenada Link Road & Cross-Valley Link 2. Second Mt Victoria Tunnel Development of the Regional Land Transport Plan (RLTP) 2024-27mid-term review of the programme of activities (coordinated by GW) and funding bids for National Land Transport Fund (NLTF) 2024- 27 are underway. Changes in the GPS may affect transport programme submissions around activity class, State	Consideration of standing up of RoNS consenting team again.  GW (and RTC) submit on the new draft GPS GW officers incorporate GPS changes (and subsequent changes to Approved Organisation (AO) transport programmes in the region) into the RLTP 2024-27 mid-term review once these are confirmed and submitted. Direction re LGWM will affect Waka Kotahi SHIP and WCC transport programmes.	The Ministry of Transport released a new draft GPS 2024 on land transport for feedback on the 6 March.  The draft GPS includes significant changes in policy direction and associated funding allocation. Two RoNS projects have been identified for the Wellington region, along with support for several other major roading and public transport projects. Funding in the two public transport activity classes has reduced in real terms. In addition, the draft GPS signals the need to increase farebox recovery and looking at third party sources. This raises concern around the affordability of maintaining and improving our public transport network.  Submissions on the GPS are being prepared by the Regional Transport Committee and Council, along with

sive list of all policy changes – these are changes	of most interest to Greater Well	ington	
	Highway Improvement Programme (SHIP) changes, etc. and would trigger updates to the RLTP review programme. On 5 December, the Regional Transport Committee (RTC) considers endorsement of proposed timelines on how officers will feed updates into the RLTP 2024 review programme of activities once the new draft GPS is released.  Until the GPS is release there is uncertainty over the levels of funding available to support current operations post 1 July 2024 and capital improvements.	The NLTF remains underfunded to maintain the current network. GW with regional and local partners should advocate for the completion of Future of Transport Funding Review.	various regional and local government sector submissions.  Still awaiting release of the subsequent State Highway Investment Proposal (SHIP). Delays have meant significant impacts on the regional sector's ability to complete their statutory RLTPs and Waka Kotahi have confirmed a time extension until 1 August 2024 to submit final RLTPs.
Withdraw central government from Let's Get Wellington Moving programme (LGWM).	Uncertainty on future of component projects of overall LGWM programme  Change in GW partnership role, planning input, funding, contribution to projects and activities previously covered by LGWM that are likely to continue.  FAR funding for expanded Travel Choice Programme will not be available under LGWM and will need to be secured for 24-27.	Advocacy for importance of elements of the existing LGWM programme continuing  LTP funding discussions re level of contribution to City Streets projects under new WCC led approach  Incorporation of any transport programme changes into the RLTP 2024-27 mid-term review.  Urgently work with LGWM partners to transition programmes of work and agree new funding arrangements.	In early February LGWM partners mutually agreed to end the partnership, terminating the relationship and funding agreement.  Council paper to 29 Feb meeting outlines the LGWM Programme close-down process and notes the project status and next steps for elements of the former programme that will continue.  Early collaboration (WCC-GW) underway and will continue with joint work expected to develop a reshaped package of street improvements – some scope, timing, phasing changes are expected in the context of affordability.  WCC and GW draft LTPs have made provision for bus priority going forward, these are subject to consultation and final decisions. A joint programme to manage this work is being established across both councils.

Note this is not comprehens	this is not comprehensive list of all policy changes – these are changes of most interest to Greater Wellington					
				Awaiting new GPS for direction regarding project priorities and funding for activities that will continue post LGWM.		
	Stop Labour's blanket speed limit reductions and start work on replacing the Land Transport Rule: Setting of Speed Limits 2022.  Reverse speed limit reductions where it is safe to do so. (National-ACT agreement)	Implications for Regional Speed Management Plan 2024 development underway (coordinated by GW officers on behalf of the RTC) if the Rule is replaced / Speed Management Plan (SMP) process changes. Some Road Controlling Authorities (RCA)s have already submitted their SMPs to the Director of Land Transport for certification – reversing the speed management direction and programmes could result in significant wasted resource and time by councils and local communities.  Regional Transport is	Continue working closely with RCAs and Waka Kotahi in the region to understand impacts on existing Regional Speed Management Plan process and opportunities to engage.  Work with government for an improved speed management regime to achieve objective of reducing harm in higher risk areas.	In December 2023, the Minister of Transport removed the requirement for RCAs and Regional Transport Committees (RTCs) to develop speed management plans. Where speed management plans were not yet final, the Minister encouraged RCAs and RTCs to consider the new Rule before making any final decisions.  On 26 March, GW officers brought a decision paper to the RTC to pause work on the development of the combined RSMP until such time as the new Rule is available and the role of the RTC (if any) is understood.  Some RCAs whose SMPs have been certified by the Director are proceeding to implementation, while other RCAs are awaiting the new Rule before progressing.		
		recommending to RTC that all work on the regional speed management plan cease.				
	Upgrade the Super Gold Card and Veterans Card to maximise its potential benefit for all holders.	Potential impact on Metlink Super Gold concession use policy and practice with potential related finance/funding impacts. Resourcing (project) impacts from any new fares policy arising.	Ongoing watching brief to ensure any changes to Super Gold use policy, and implementation costs, are wholly central government funded.	No policy changes signalled to date.		
	Reduce expenditure on cycleways.	'Walking and cycling' is an activity class in the draft GPS 2024 under which Authorised Organisations (those able to access funds from the NLTF) have submitted activities in	GW (and RTC) submit on the new draft GPS	While the draft GPS activity class has an increased allocation for walking and cycling, it is now the only activity class able to fund these types of improvements — including maintenance — which means it needs to do much more than previously and represents a reduction in real terms. There is also a much narrower criteria for		

Central government policy direction – post 100-days update

Note this is not comprehensive list of all policy changes – these are changes of most interest to Greater Wellington

Note this is not comprehens	is not comprehensive list of all policy changes – these are changes of most interest to Greater Wellington				
		their transport programmes for the NLTF 2024-27 funding bid. The forthcoming draft GPS may reflect funding implications on allocation for walking and cycling		funding eligibility – contribution to economic growth & productivity + existing high volumes + safety.  Government has already withdrawn all funding for cycling and walking under Better Off Funding arrangements and all support from Climate Emergency Response Fund (CERF) funding except where contracts were already in place.	
	Replace fuel excise taxes with electronic RUC for all vehicles, starting with electric vehicles	Financial impacts for public transport on how fuel is paid (and how much) under current contracts	Review impacts under current public transport operator contracts work stream.  Support introduction of RUC for all users as a way to better capture true cost of usage, charge appropriately and use the most economically efficient means of transport.  Contains possibility of reducing overall vehicle use.	RUC exemption for electric vehicles set to expire 31 March 2024. Road User Charges (Light Electric RUC Vehicles) Amendment Bill (a government Bill) introduced February 2024.	
	Work with Auckland to implement time of use road charging	Potential extension over the triennium to Wellington.  The RTC and GW has previously submitted in support of introducing legislation to enable road pricing or congestion charging in Wellington region as a potential tool to support mode shift and emission reduction goals.  The draft Wellington Transport Emissions Reduction Pathway highlights the important role that road pricing mechanisms play in reducing transport-generated emissions.	Review impacts under current public transport operator contracts work stream.  Continue to advocate for enabling legislation to support road pricing in Wellington and for hypothecation of revenue raised directly into public transport and active mode improvements.	Draft GPS 2024 signals support for new approaches to transport network revenue, including road pricing (congestion or time of use) schemes.  Removal of the Auckland Regional Fuel Tax – which may be a pre-cursor to progressing a new congestion charging tool.	
	Commitment to supercharge electric vehicle infrastructure with a comprehensive, nationwide network of 10,000 public EV chargers by 2030 will specifically take into	This will assist the electrification of the vehicle fleet in the region and	Consideration for RLTP development	Draft GPS includes a commitment to fund Electric Vehicle Charging Infrastructure. However, this is	

,	account that there must be robust cost benefit analysis to ensure maximum benefit for government investment.	contribute to reducing emissions.		alongside the removal of other incentives to support uptake like RUC exemptions and clean car discount.	
	Cancel Labour's planned "fuel tax hikes" that would add another 12 cents per litre, or and extra \$8 for a full tank.	Places continued downward pressure on funding within the NLTF for maintenance, operations and renewals including funding of public transport.	Lobby for completion of future of transport funding study currently underway by the Ministry of Transport.	Draft GPS notes that government will be rapidly advancing reforms to the National Land Transport Fund's revenue system.	
	Repeal Clean Car Discount (National-Act agreement)	This will not assist the electrification of the vehicle fleet in the region and therefore reducing emissions.		Has been repealed, effective end of 2023.	
Infrastructure, Energy & Natural Resources	Establish a National Infrastructure Agency under the direction of relevant Ministers, to coordinate government funding, connect investors with New Zealand infrastructure, and improve funding, procurement, and delivery.	Could provide a vehicle for more effective regional coordination of infrastructure development and funding with positive impacts in areas of Three Waters, Transport and clean energy supply. Planning, funding and procurement impacts for Metlink infrastructure including for new developments and TOD.  Opportunity to secure funding for regionally significant infrastructure projects.	Understand the reach and scope of the Agency and lobby for effective regional coordination and planning. Ongoing watching brief and review of policy development and implementation for opportunities to increase funding options and pathways.	Understood to be a work in progress.	
	Build infrastructure with 13 new Roads of National Significance (RoNS) and four major public transport upgrades.	Public Transport upgrades: Expected to include 'Improvements to increase capacity and reliability on Lower North Island train services for passengers and freight' (as per National Party Policy Programme)  RoNS: Expected to include — Second Mt Vic Tunnel	Incorporation of any transport programme changes into the RLTP 2024-27 mid-term review  Consider how to influence the shape of RoNS projects going forward to contribute to GW's strategic objectives, outcomes and targets.  Work with WRLC to consider impacts on FDS once timing of and process for road development is known.	New draft GPS 2024 identifies 2 RoNS for Wellington:  Second Mt Victoria Tunnel and Basin Reserve upgrade  Petone to Grenada Link Road and Cross Valley Link)  Three other major transport projects:  Otaki to North of Levin SH58 Stage 2 SH2 Melling Transport Improvements	

	this is not comprehensive list of all policy changes – these are changes of most interest to Greater Wellington				
	Grenada and Valley Link  Future Devel accounts in a for the regio (e.g. identifice east-west co Future Devel Implementat March 2024 2024) can incorpojects and	lopment Strategy a general sense nal new roads es the need for an nnection). The lopment Strategy tion Plan (draft and final June clude these any associated		<ul> <li>And two major public transport:</li> <li>Lower North Island Rail Integrated Mobility</li> <li>acceleration of Wellington's North-South, East-West, and Harbour Quays' bus corridors.</li> </ul>	
infrastructure d	erm city and regional eals, allowing PPPs, tolling are rating to fund  Significant of region to neg help fund inf necessary to as well as co changes, par arrangement of powers or  Planning, procuren Metlink i infra for developr  Councils urged to priority p immedia National National National, Deals)  Advocate a regional from mu focused of direction	support growth insider regulatory itnership its and devolution in a bespoke basis.  I, funding and inent impacts for infra including inew inents and TOD and regions are begin identifying	<ul> <li>Ongoing watching brief and review of policy development and implementation for opportunities to increase funding options and pathways.</li> <li>Regional and City Deals – consider how best to pivot quickly from the current strategic transport and housing processes to identify and package projects for a regional or city deal - housing/infrastructure/transport.</li> <li>WRLC has discussed at a regional level the level of interest in pursuing a regional deal and agreed a framework for a deal. The GWRC Chair in his role as Deputy Chair of the WRLC will be attending, along with the WRLC Chair a meeting with Minister Brown in early April to discuss this framework.</li> </ul>		

Note this is not comprehen	this is not comprehensive list of all policy changes – these are changes of most interest to Greater Wellington					
		the Regional Economic Development Plan.				
	Prioritise strategic infrastructure to improve the resilience of heavy industry in New Zealand.					
	Establish a Regional Infrastructure Fund with \$1.2 billion in capital funding over the Parliamentary term.	Seeking \$47M crown funding for a \$62M capital investment in flood resilience infrastructure over the next 3 years     Potential opportunity to explore funding opportunities for some of the Palmerston North LNIRIM components	Funding (GWRC \$25M Share) allowed for in Draft LTP Potential opportunity to explore funding opportunities for some of the Palmerston North LNIRIM components.			
	Facilitate the development and efficiency of ports and strengthen international supply networks.	Could impact on the role of CentrePort in the national supply chain. Opportunity to position CentrePort as a key element of the national supply chain and grow its role	WRC Holdings preparing an Investment Strategy and working with CentrePort Board to look for partnership opportunities			
	Require the electricity regulator to implement regulations such that there is sufficient electricity infrastructure to ensure security of supply and avoid excessive prices.	Potential impact on Metlink fleet electrification strategy.  Opportunity to better plan a carbon neutral future if owners and operators can build for anticipated future demand.	Watching brief.  Engage in change process to support moves to build sufficient future capacity to meet increased demand from decarbonised energy future.	No update.		
	Plan for transitional low carbon fuels, including the infrastructure needed to increase the use of methanol and hydrogen to achieve sovereign fuel resilience.	Potential impact on Metlink fleet decarbonisation strategy including vehicle standards and procurement.	Watching brief.	No update.		

Affordable Water Reform	Repeal Three Waters legislation.	Bulk Water responsibilities remain with GW	Status Quo. However, GW may wish to pursue transfer of bulk water assets and responsibilities to TAs or any new structures created	Previous Government's Affordable Water Reform repealed.
	Stop all work on establishing the agencies	Contractors resourced through DIA need to refocus their efforts to continue being affective for GW until the new government provides a new approach.  Watercourses Agreements need to be reviewed	Workstream required.  Continued lobbying for the government to contribute to the affordability of the significant investment required for water infrastructure.	
Housing	Begin work on Going for Housing Growth policy, to expand housing supply, build infrastructure and give councils flexibility over MDRS standards.	Potentially could impact on the implementation of the Future Development Strategy under the Wellington Regional Leadership Committee.	The Future Development Strategy (FDS) is our regions vision for the next 30 years. The strategy has been updated to reflect some new government direction, such as Petone to Grenada and has removed all reference to Let's Get Wellington Moving. The FDS implementation plan is currently being developed and will be socialised, including confirming with GWRC staff over April/May and taken to the WRLC committee meeting in June for adoption.	Continue monthly central government partnership meetings to keep up with government direction and work with them to implement the FDS.
	Introduce financial incentives for councils to enable more housing, including considering sharing a portion of GST collected on new residential builds with councils.	Potential positive impact on public transport infrastructure funding planning.	Advocate, from a public transport perspective, that some GST share should go towards public transport infrastructure development to enable access to new high-density developments.	
	Legislate to make the MDRS optional for councils, with the need for councils to ratify any use of Medium Density Residential Standards (MDRS), including existing zones.	The draft RPS urban intensification provisions assume the existence of the MDRS and LGWM rapid transit corridor. Their removal or dilution is likely to reduce the ability to achieve the environmental objectives of the RPS.	Work through the Regional Leadership Committee to understand the intent of each TA and lobby for continued intensification along key transport corridors and around centres.	MDRS legislation planned for end 2024.

Natural resource management	Repeal NBEA and SPA and introduce a fast-track consenting regime.	Ability to fast-track critical transport projects of regional significance.  GW (Env Reg) will have the compliance and enforcement functions for any projects fast-tracked in the region.	Feed into design of new fast-track consenting regime (most probably via Te Uru Kahika). Engage at Select Committee via submission process. Support use of process for critical regional infrastructure projects.	NBEA and SPA repealed.  Fast-track Bill introduced 7 March.
	Repeal the Natural and Built Environment Act 2023 and the Spatial Planning Act 2023 by Christmas.	No impact on plan changes as plan change work programme operating under the old RMA. Significant impact on longterm spatial planning as the draft FDS has been written as a stepping stone towards the effective regional spatial planning contained within the SPA and was the vehicle for more effective infrastructure planning.  Need to consider impact on any consents issued under the NBEA framework.	Lobby in replacement legislation for regional spatial planning.  Work with existing tools through a Regional Planning Committee (which could be WRLC) to progress a unified regional spatial plan and approach towards infrastructure provision.	NBEA and SPA repealed.
	Amend the Resource Management Act 1991 to:  • Make it easier to consent new infrastructure including renewable energy, allow farmers to farm, get more houses built, and enhance primary sector including fish and aquaculture, forestry, pastoral, horticulture and mining. • Streamline the plan preparation process in Schedule 1 of the RMA. • Simplify the planning system and related statutes including the Public Works Act and the Reserves Act. • The Parties commit to establish a fast-track one-stop-shop consenting and permitting process for regional and national projects of significance. The process will include a referral by	No immediate impact on plan change work programme.  Will impact plan change work programme once legislation is enacted.	Feed into drafting of new legislation (most probably via Te Uru Kahika). Engage at Select Committee via submission process.	Fast-track Bill introduced 7 March which establishes an approvals process outside the RMA.

Ministers for suitable projects. A Bill to introduce this process and make other essential statutory amendments will have its first reading as part of the government's 100-day plan.			
Replace the Resource Management Act 1991 with new resource management laws premised on the enjoyment of property rights as a guiding principle.	No immediate impact on plan change work programme.  Will impact plan change work programme once legislation is enacted.	Feed into drafting of new legislation (most probably via Te Uru Kahika). Engage at Select Committee via submission process.	Planned by end of 2025.
Replace the National Policy Statement for Freshwater Management 2020 to allow district councils more flexibility in how they meet environmental limits and seek advice on how to exempt councils from obligations under the National Policy Statement for Freshwater Management 2020 as soon as practicable.	Possible implications for Plan Change 1, depending on when the replacement NPS-FM is gazetted.  Implications for work underway to implement the NPS-FM 2020 which may be inconsistent with a new replacement NPS-FM.	Feed into drafting of new NPS-FM. Engage via submission process.	Process for review and rewrite as part of resource management reform.
Replace the National Policy Statement for Freshwater 2020 to rebalance Te Mana o te Wai to better reflect the interests of all water users.	Possible implications for Plan Change 1, depending on when the replacement NPS-FM is gazetted.  Implications for work underway to implement the NPS-FM 2020 which may be inconsistent with a new replacement NPS-FM.  Uncertainty in resource consenting, with applicants already expecting a paradigm shift.	Feed into drafting of new NPS-FM. Engage via submission process.	Process for review and rewrite as part of resource management reform.
Replace the National Policy Statement for Freshwater Management 2020 and the	Possible implications for Plan Change 1, depending on when	Feed into drafting of new NPS-FM. Engage via submission process.	Process for review and rewrite as part of resource management reform.

National Environmental Standards for Freshwater to better reflect the interests of all water users.	the replacement NPS-FM is gazetted.		
	Implications for work underway to implement the NPS-FM 2020 which may be inconsistent with a new replacement NPS-FM.		
Commence an urgent review into the implementation of the National Policy Statement on Indigenous Biodiversity before any implementation.	Uncertainty in resource consenting, with applicants already expecting a paradigm shift.	Participate in review if possible; possible implications for RPS Change 1 hearings.	Review of all national resource direction to be aligned.
Improve Farm Environment Plans so they are more cost-effective and pragmatic for farmers.		Ensure farm planning is designed to be costeffective and pragmatic.	Direction to implement 'with a light touch'.
Support Farm Environment Plans administered by regional councils and targeted at a catchment level.			
Adopt standardised farm level reporting.			
Cut red tape and regulatory blocks on irrigation, water storage, managed aquifer recharge and flood protection schemes.	Depending on the nature of this work could have implications for work underway to implement the NPS-FM 2020 which may be inconsistent with this direction.		
Amend the National Environmental Standards for Plantation Forestry (NES-PF) regulations to place a duty upon harvesters to contain and remove post-harvest slash.	Unclear is this has already been superseded with the new NES for Commercial Forestry.	Review plans NRP to ensure consistent when appropriate.	
Deliver longer durations for marine farming permits and remove regulations that impede the productivity and enormous potential of the seafood sector.	There are no marine farms in the region		Engagement period closed.

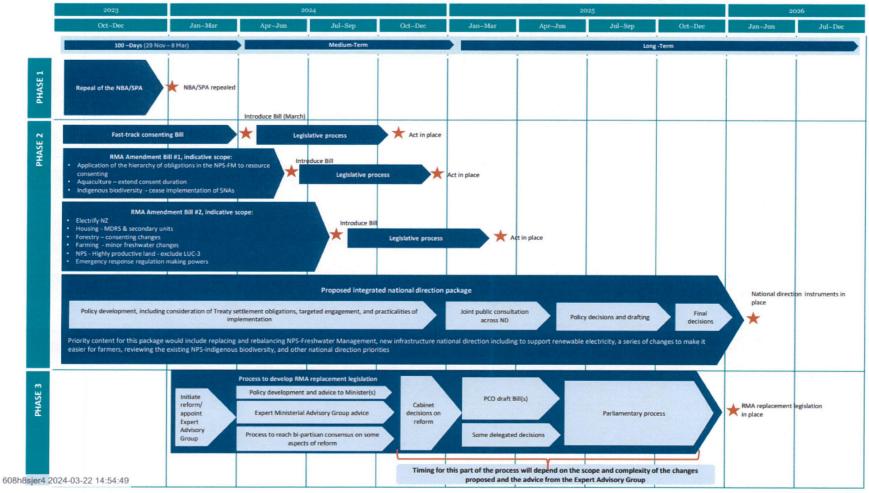
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	Liberalise genetic engineering laws while ensuring strong protections for human health and the environment.			
Climate change	Deliver Net Zero by 2050 including by doubling New Zealand's renewable electricity and supporting new technology to reduce agricultural emissions.	Opportunity for GW's Energy Transformation Initiative		
	Maintain a split-gas approach to methane and carbon dioxide through to 2050 and review the methane science and targets in 2024 for consistency with no additional warming from agricultural methane emissions.	Likely to reduce the ability to reduce emissions from the agriculture sector		
	Enable farmers and landowners to offset sequestration against their on-farm emissions.	Will have links through to farm planning and rural land use change.		
	Plan for transitional low carbon fuels, including the infrastructure needed to increase the use of methanol and hydrogen to achieve sovereign fuel resilience.	Opportunity for CentrePort heavy freight		
	Ensure that climate change policies are aligned and do not undermine national energy security.			
	Ensure the government's energy settings allow for the exploration of natural geological hydrogen in New Zealand, to maximise future energy resilience.			
	Stop the current review of the ETS system to restore confidence and certainty to the carbon trading market.	Supports upward pressure on emissions unit (NZU) prices in the short and medium term, which increases the value of NZUs held by council and therefore the value of the Low Carbon Acceleration Fund		
	Progress work to recognise other forms of carbon sequestration, including blue carbon.			

Note this is not comprehen	sive list of all policy changes – these are changes	s of most interest to dreater wen	ington	
	Incentivise the uptake of emissions reduction mitigations, such as low methane genetics, and low methane producing animal feed.			
Te Tiriti and outcomes for Māori	Honour the undertakings made by the Crown through past Treaty of Waitangi settlements.	Existing settlements not affected; unclear how partners who have not settled yet will be affected.		
	Reverse measures taken in recent years which have eroded the principle of equal citizenship, specifically:  Remove co-governance from the delivery of public services.  Restore the right to local referendum on the establishment or ongoing use of Māori wards, including requiring a referendum on any wards established without referendum at the next Local Body elections.  Confirm that the Coalition Government does not recognise the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) as having any binding legal effect on New Zealand.	Introduced legislation may impact Council's resolution to establish a Maōri Constituency for the 2025 triennial elections.	Consider the impact of introduced legislation on Council's establishment of a Maōri Constituency and the 2024 representation review. Engage with Select Committee via submissions process.	On 4 April 2024 the Minister of Local Government advised that the Government will introduce a Bill in the next few months to restore binding polls on the establishment of Māori wards and constituencies. Under the proposed legislation the Council will have the options of:  A: resolving this year to rescind its decision to create a Māori Constituency by council resolution, to take effect at the 2025 local elections, or  B: holding a binding poll on the question of Māori Constituencies at the 2025 local elections, to take effect at the 2028 local elections.
	Amend section 58 of the Marine and Coastal Area Act to make clear Parliament's original intent, in light of the judgment of the Court of Appeal in Whakatohea Kotahitanga Waka Edwards) & Ors v Te Kahui and Whakatohea Maori Trust Board & Ors [2023] NZCA 504.	There are significant overlaps shown of the maps of applicants seeking recognition of their Customary Marine Title (CMT) and/or their Protected Customary Rights (PCRs) in the Wellington region.	Feed into review process and drafting of new provisions.	
	Amend the Waitangi Tribunal legislation to refocus the scope, purpose, and nature of its inquiries back to the original intent of that legislation.	Five of six of GW's mana whenua partners have completed the Waitangi Tribunal aspects of their settlement processes.	Feed into review process and drafting of new provisions.	

	Conduct a comprehensive review of all legislation (except when it is related to, or substantive to, existing full and final Treaty settlements) that includes "The Principles of the Treaty of Waitangi" and replace all such references with specific words relating to the relevance and application of the Treaty, or repeal the references	May have a knock-on effect on documents that flow from legislation (e.g. RLTP, RPMP, RPS, NRP, etc.).		100-day Bills have excluded references to Principles.
	Remove co-governance from the delivery of public services.			
Employment and Immigration	Improve the Accredited Employer Work Visa to focus the immigration system on attracting the workers and skills NZ needs	May impact on off-shore recruitment for bus drivers.	Advocate to keep public transport workforce needs high on INZ skills shortage register.	No update.
	Investigate the establishment of an "Essential Worker" workforce planning mechanism to better plan for skill or labour shortages in the long term.	May impact on off-shore recruitment for bus drivers.	Advocate to keep public transport workforce needs high on INZ skills shortage register.  Determine, and advocate for, other crucial skills shortages across transport (e.g. specialist engineers) to be included in EW mechanism.	No update.

#### **Government's Resource Management Timeline**

Appendix 1: Reforming the Resource Management System - Three-Year Indicative Work Programme



Source: Work-Programme-for-Reforming-the-Resource-Management-System.pdf (environment.govt.nz)

#### Coalition Government's Action Plan for New Zealand 1 April – 30 June 2024

## Coalition Government's Action Plan for New Zealand - 1 April-30 June 2024

#### Rebuild the economy and ease the cost of living

- 1. Deliver a budget that reduces wasteful spending while investing in frontline services like health, education and Police.
- 2. Legislate for personal income tax relief.
- 3. Legislate to introduce the FamilyBoost childcare tax credit.
- 4. Finalise the Government Policy Statement on Land Transport, freezing fuel tax until the end of 2026 and delivering significant investment for transport.
- 5. Take decisions to implement the Going for Housing Growth plan while making the MDRS optional for councils.
- 6. Respond to the independent review of Kāinga Ora's financial situation, procurement, and asset management.
- 7. Introduce legislation to improve the rental market.
- 8. Release draft plan to ease restrictions on building materials from overseas for public consultation.
- 9. Take decisions on measures to increase investment in renewable electricity generation.
- 10. Introduce legislation to amend the RMA to clarify application of National Policy Statement on Freshwater Management in relation to individual consents for freshwater and to extend marine farm consent.
- 11. Introduce legislation to suspend the requirement on councils to identify and adopt new Significant Natural Areas.
- 12. Finalise policy to keep agriculture out of the ETS.
- 13. Commence an independent review of the methane science and targets for consistency with no additional warming from agricultural methane emissions.
- 14. Reform the CCCFA regime to improve access to credit for home buyers.
- 15. Initiate the first regulatory sector review.
- 16. Take decisions on the scope of the extension to the Covid-19 inquiry.
- 17. Take decisions on reform of the Holidays Act
- 18. Raise the energy New Zealand brings to key relationships through international engagements, focussing on our traditional partners, the Pacific, and South East and South Asia.
- 19. Take decisions on the removal of the ban on offshore oil and gas exploration.
- 20. Commission a study into New Zealand's fuel security, including investigating the feasibility of reopening the Marsden Point Oil Refinery.
- 21. Establish a Regional Infrastructure Fund.

## Coalition Government's Action Plan for New Zealand 1 April - 30 June 2024

#### Restore law and order

- 22. Progress legislation to improve rehabilitation, reintegration and safety outcomes in the corrections system, including by extending eligibility to offence-based rehabilitation programmes to remand prisoners.
- 23. Take decisions to restore Three Strikes.
- 24. Launch a review of the firearms registry.
- 25. Take decisions on establishing a Youth Serious Offender Category and making Youth Military Academies a standalone sentencing option for the Youth Court.

## Deliver better public services

- 26. Set targets for improving public service outcomes.
- 27. Take decisions on the rollout of structured literacy for year 1-3 students, including a phonics check.
- 28. Take action to strengthen teacher training, including refocusing Professional Learning and Development for teachers on numeracy, literacy and assessment.
- 29. Take action to develop standardised assessment and regular reporting to parents.
- 30. Introduce legislation to reintroduce charter schools.
- 31. Launch an Attendance Action Plan and introduce the first phase of initiatives to lift school attendance.
- 32. Take decisions to disestablish Te Pūkenga and consult on a proposed replacement model.
- 33. Issue a new Government Policy Statement on Health, setting the government's priorities for the health system for the next three years.
- 34. Take decisions to streamline the Medsafe approval process.
- 35. Take decisions to tighten controls on youth vaping.
- 36. Take decisions on the repeal of Section 7AA of the Oranga Tamariki Act.

## Upcoming Government changes to the resource management system

Area of change	Current regulatory levers	Current practice at GW	What happens if changes are legislated
Make it clear that, while the NPS-FM is being reviewed and replaced, resource consent applicants no longer need to demonstrate their proposed activities follow the Te Mana o te Wai hierarchy of obligations, as set out in the National Policy Statement for Freshwater Management (NPS-FM).	Te Mana o te Wai is reflected in our RPS Change 1 We also have Freshwater aspiration statements for mana whenua in NRP PC1.	Consent applicants need to demonstrate consideration of Te Mana o te Wai in their application. Consideration of Te Mana o te Wai will continue until regulations changed.	National direction will make it clear that the hierarchy of Te Mana o te Wai no longer applies when considering consent applications.  Currently unclear as to the amount of 'weight' we can put on other statutory documents that have incorporated the hierarchy (e.g. statements within the RPS change).
Amend stock exclusion regulations in relation to sloped land.	Regulated at both regional (NRP) and national level (stock exclusion regs).  Operative NRP-Rule R98: Livestock access to a surface water body or the coastal marine area  PC1 (Te Whanganui a Tara), WH.R28 (Livestock access to a small river (PA), and WH.R29 (D) with Policy WH.P26 (Managing livestock to small rivers refer to two small streams river catchments – Makara and	We will continue to implement both the National Environment Standards (NES) and our NRP in relation to stock exclusion until the legislation is removed.  Currently we do compliance and monitoring only through incident notifications. Our response also includes the advocacy and education nonregulatory work with our Environment Restoration team.	We will revert to implementing the NRP if the regulations are completely repealed.  If regulations are just amended, we will review our approach to make sure both the new regulations and our regional plan are implemented.

	Mangaroa). More		
	stringent than R98.		
Repeal intensive winter grazing regulations.	This was a national regulation only. In the NRP we only regulate break feeding rather than winter grazing.	We are currently processing winter grazing consents (with only 1 consent processed to date)  We only monitor at dairy compliance visits if applicable, and if we receive a notification.	Will not pursue any more applications and will advise farmers not to apply if they ask.  Will not actively monitor permitted activity sites either but will continue to respond to incidents if they come in.  We will continue to implement the NRP rules on break
			feeding.
Align the consenting pathway for coal mining with the pathway for other mining activities in the National Policy Statement for Indigenous Biodiversity (NPS-IB), NPS-FM, and the National Environmental Standards for Freshwater (NES-F).	Effects management hierarchies in the NRP, NPS-IB and NPS-FM do not have any exclusions to the 'avoid' direction for coal mining.  Applications for coal mining are subject to the 'Avoid' direction in effects management hierarchies.	Note: coal mining is an unlikely activity in the Wellington Region.  NRP rules for activities within wetlands are more stringent than those in NES-F.	Overrides NRP policy and provides a consenting pathway for coal mining; especially significant where the activity is "non-complying".
Suspend the NPS-IB requirement for councils to identify new Significant Natural Areas (SNAs) for three years.	The announcement refers only to ceasing identification of new SNAs.  Both the RPS and NPS-IB contain direction for TAs to identify SNAs in the terrestrial environment. RPS Change 1 requires this to be complete by June 2025, and	Has been a RPS requirement for TAs to identify SNAs since 2013.	RMA s84 requires that local authorities must observe their own policy statements and plans.  Provisions, such as RMA s6, RPS policies 23, 24 and 47, and provisions in the NPS-IB must continue to be given effect when considering

	would prevail over the NPS-IB deadline which is by August 2028.		applications for resource consents, notices of requirement or when preparing plan changes or reviews.  Greater Wellington recognises an understandable reluctance by TAs to embark on new proactive investment in the identification of new SNAs outside of
Farm plans	Regulated at both regional (NRP) and national level.	Long history of farm planning at GW. Tied to funding in some cases.  Currently implementing our regional farm plans. Only undertaking internal preparation of national farm plans until we wait for further guidance/changes to the legislation.	these processes.  Continue with current approach and amend accordingly once decisions are made on national legislation.
Port consent extension	CP for occupation under RMA expires 2026. Occupation by existing (pre 2015) port structures covered by NRP (R204)	Nothing needed. Discussions with CPL if required for new wharves/ alterations/ change of ownership	No news yet on amendments.
Fast-track	Existing fast-track provisions sit in the current RMA.	Teams provide information requested into fast track processes, ideally with meetings with applicants prior to	Fast-track Bill is currently in front of Select Committee.

	T	T	T
		formal processes	
		beginning.	
Dams safety	Waikato RC process	Requires setting up	Dangerous Dams
Regulations coming	building consent	of new systems.	Policy is being
into force on 13 May	applications for		reviewed for
2024	new dams on our		consultation.
	behalf. No other		Must establish a
	requirements at		register of dams in
	present unless a		the region, approve
	dam poses		dam safety
	immediate danger.		documentation, and
			monitor compliance
			of dam-owners.
			Must take action if
			any dam poses
			immediate danger –
			as outlined in the
			policy
Speed up the process	The current	We would still	The ability to change
to make or amend	national direction is	continue to	national direction
national direction,	reflected in the	implement the NRP	faster creates
such as national	NRP and the RPS;	and RPS, until any	uncertainty and
policy statements and	but there is often a	regulatory changes	unrest for regional
national	lag when direction	are made.	and district councils.
environmental	is changed.		There will always be
standards.			ʻplanning lag' under
			the current system.

Wairarapa Committee 28 May 2024 Report 24.219



#### For Information

# UPDATE ON THE WAIRARAPA MOANA WETLANDS PROJECT AND REVIEW OF THE LOWER WAIRARAPA VALLEY DEVELOPMENT SCHEME

## Te take mō te pūrongo Purpose

- 1. This report provides an overview of recent activities undertaken by the Wairarapa Moana Wetlands Project.
- 2. It includes an update on Greater Wellington's approach to a review of the Lower Wairarapa Valley Development Scheme (the LWVDS).

# Te tāhū kōrero Background

- 3. The Wairarapa Moana Wetlands Project is a partnership programme with partners representing Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Greater Wellington, Department of Conservation (DoC) and South Wairarapa District Council (SWDC).
- 4. Operational funding is provided by Greater Wellington and Department of Conservation. Currently the project is supported through the Public Waterways and Ecosystem Restoration Fund, which is providing an additional \$3.5M, over 5 years. This funding programme has just over one year left to run, ending on 30 June 2025
- 5. Alongside direct support for the Wetlands Project, Greater Wellington funds and undertakes a variety of other activities around Wairarapa Moana. The LWVDS is the largest and most high profile of these activities. The LWVDS is a catchment-scale land development scheme which enables farming operations by providing ongoing flood protection. The operation of the scheme has a large and ongoing impact on the Wairarapa Moana environment.
- 6. Following recent treaty settlements, the arrangements for oversight and management of activities around Wairarapa Moana are subject to change. Greater Wellington is committed to working with mana whenua partners and others through this changing context.

## Te tātaritanga Analysis

Highlights of the Wairarapa Moana Wetlands Project

- 7. This project has achieved a number of highlights through collaboration amongst the partners:
  - a Ongoing citizen science monitoring of kākahi, which has now completed ten years of monitoring.
  - b The annual monitoring of matuku hūrepo (australasian bittern) in the Wairarapa Moana Wetlands, which shows the effectiveness of the predator control network in protecting this critically threatened species. It is now showing signs of increase after 11 years of continued monitoring, one of very few populations worldwide on the increase.
  - c The successful planting of approximately 98,000 native plants around Wairarapa Moana and the opportunity this provides community and mana whenua to connect with Wairarapa Moana.
  - d Nga Kanohi Marae o Wairarapa (trades-based training team that helps to upskill rangatahi and mana whenua) building 3 km of fencing to protect vulnerable habitats.

## Changes to the project approach

- 8. The Wairarapa Moana Wetlands Project is currently in a transitional space. Once formed, the values of the Wairarapa Moana Statutory Board will guide the project's future actions.
- 9. There has been a gradual shift in how the project works over the past two years as we have transitioned to creating flexibility in the work planning to support work led by other partners rather than Greater Wellington led work. For example, the project has financially supported Ngāti Kahungunu ki Wairarapa's Te Raranga Māramatanga me Ngā Tipu project expansion to collect an additional sediment core from Wairarapa Moana. The project was able to support Rangitāne o Wairarapa to host a 'Let's talk wai' wānanga.
- 10. In the final year, the project plans to continue to have the flexibility to support partners' projects, investigations, and wānanga around Wairarapa Moana. We will plant 29,000 natives from He Kotare Nursery, Kohunui Marae Native Plant Nursery, and Norfolk Road Nursery. We will complete 13km of fencing to protect freshwater values. We will continue to support kākahi and bittern monitoring and maintain the 607-ha predator control network.

## Review of the Lower Wairarapa Valley Development Scheme

11. Greater Wellington is undertaking a review of the LWVDS and is in the early stages of scoping and organising this work. The review will take long-term issues into account including the Ruamāhanga Whaitua Implementation Programme (WIP) recommendations and climate predictions. The review will include hydraulic modelling and an assessment of flood protection capacity as well as environmental effects.

- 12. Mana whenua partners and the Lower Ruamāhanga Valley Floodplain Management Advisory Committee (an advisory body of the Wairarapa Committee) will play a core role in the review. Other key players include SWDC, DoC, and Fish & Game.
- 13. Greater Wellington recognises the links between operation of the LWVDS, the Wetlands Project and other environmental work in the lower valley. This presents an opportunity to integrate activities relating to the review with work the Wetlands Project and others are doing. For example, modelling and monitoring the environmental effects of the barrage gates could be integrated with Wetlands Project work on freshwater ecology and habitat.
- 14. The exact scope and organisation of the review is yet to be determined. A certain amount of progress on the review needs to be made prior to the expiry of existing resource consents in 2027. However Greater Wellington anticipates that the review work is likely to extend beyond this timeframe. A recent information paper relating to the LWVDS review, and the barrage gates consent is included as **Attachment 1** to this report.

# Ngā hua ahumoni Financial implications

15. With only a year to go before the end of the Ministry for the Environment (MfE) funding, thoughts are turning to the on-going work required at Wairarapa Moana and how this can be supported. This coming financial Year (2024/2025) the project will have approximately \$1 million in funding from MfE, DOC and Greater Wellington. Several areas of work such as pest plant and animal control, planting, and bittern and kākahi monitoring have been stepped up. Relationships have been developed further and expectations have increased. The extra capacity provided, through MfE supporting an extra paid position, has enabled more work to take place and better communications and events support. Greater Wellington will still be able to provide a baseline level of funding (estimated \$200,000 in financial year 2024/2025), however there will necessarily be a reduction in output and capacity post 2025, unless further funding can be secured.

# Ngā Take e hāngai ana te iwi Māori Implications for Māori

- 16. Lake Wairarapa is identified in the Natural Resources Plan (NRP) as inherently connected to mana whenua identity and the mana of the area. The lake is recognised as Ngā Taonga Nui a Kiwa for both Rangitāne o Wairarapa and Ngāti Kahungunu ki Wairarapa.
- 17. Iwi partners are represented on the Wetlands Project governance entity and delivery, and have been involved in the early stages of designing the LWVDS review. Finalising the scope and organisation of the LWVDS review with mana whenua is a key next step for Greater Wellington.
- 18. The Wairarapa Moana Wetlands Project has led to positive outcomes for Māori through the support of Māori businesses (for example Kohunui Marae Native nursery and Ngā

- Kanohi Marae o Wairarapa) as well as financially supporting iwi partners' projects and wānanga around Wairarapa Moana.
- 19. Changes to the Wairarapa Moana environment, including alterations to the LWVDS, would have a wide range of impacts, positive and negative, for Māori. The scheme is intricate and requires management within relatively confined parameters such as lake levels. Any changes agreed in the future will alter the balance of values and benefits provided including impacts on the environment and the economy of South Wairarapa.
- 20. With the changing ownership of Wairarapa Moana Reserves, such as transfer of the lakebed reserve to iwi, there are new relationships and opportunities to be explored in relation to the Wetlands Project and the LWVDS.

## Te huritao ki te huringa o te āhuarangi Consideration of climate change

- 21. A review of the LWVDS provides an opportunity to consider future climate impacts and make decisions on how the community can respond. This includes adaptation to the predicted drier conditions with periods of more intense rain and the potential for sealevel rise.
- 22. This is intimately connected to the wetlands project. With climate change models predicting increased water levels, the LWVDS and future management will need to understand these impacts on the ecological values of Wairarapa Moana Wetland. For example, understanding impacts on wading bird habitat, such as the Matuku Hūrepo (Australasian Bittern). Future management will also need to look at opportunities to mitigate the effects of sea level rise. For example, looking to protect and improve habitat up stream of known īnanga spawning sites that the Wairarapa Moana Wetlands Project is currently protecting, as it is likely īnanga spawning will move up the catchment with sea level rise.
- 23. Climate mitigation through emissions reduction and/or carbon capture through land use change and other mechanisms can also be considered during the review.

## Ngā āpitihanga Attachment

Number	Title
1	Report for Information - Lake Wairarapa Control Structure – 15 March 2024

# Ngā kaiwaitohu Signatories

Writer/s	Ella Buckley – Senior Biodiversity Advisor Wairarapa Moana
	Janet Lawson - Team Leader Environment Projects
	Pete Huggins - Catchment Manager Ruamāhanga
Approver/s	Jack Mace – Director Delivery

## He whakarāpopoto i ngā huritaonga Summary of considerations

## Fit with Council's roles or with Committee's terms of reference

The committee is to consider areas and matters of importance to the Wairarapa and recommend to Council on these matters; Wairarapa Moana is a significant cultural taonga and area of focus for the Wairarapa.

## Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

The Wairarapa Moana Wetlands Project delivers on Greater Wellingtons strategic priority areas of responding to improving outcomes for mana whenua and Māori and the climate emergency. Review and maintenance of the Lower Wairarapa Valley Development Scheme is a key aspect of flood protection in the Wairarapa.

### Internal consultation

Catchment, Delivery, and Ecosystems & Community have all been consulted in the preparation of this report.

## Risks and impacts - legal / health and safety etc.

A risk for the Wairarapa Moana Wetlands Project is the reduction in output and capacity post 2025 with the completion of the crown funding. Positive impacts anticipated with the incoming Wairarapa Moana Statutory Board values guiding the future of the Wairarapa Maona Wetlands Projects future actions.

#### 15 March 2024



#### For Information

## **Lake Wairarapa Control Structure**

## Te take mō te pūrongo Purpose

This paper provides information about the Lake Wairarapa control structure (the Geoffrey Blundell Barrage Gates), to provide an understanding of:

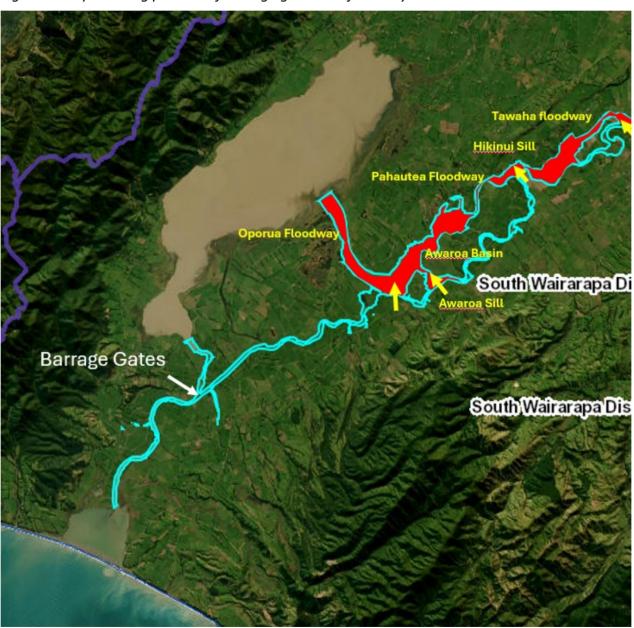
- Its purpose i.e. what it is regulating and the benefits/costs of that
- What Greater Wellington Planning instruments say about the control structure and the control of the Lake
- How the control structure is consented and the consent conditions, and whose name the consent is in
- When the consent comes up for renewal and the process for that
- What the Regional Plan says about the control structure or management of the local environment and how that is different from when the control structure was last consented.

# Te tāhū kōrero Background

- 1. The Lake Wairarapa control structure is one element of an ongoing intervention in the hydrology of Wairarapa Moana which stretches back more than 100 years.
- 2. One aspect of this historical background from a Māori perspective is contained in the historical account from the Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua Treaty Settlement:
  - "In 1888, the Crown disregarded Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua property rights and rights under te Tiriti o Waitangi when it supported those cutting a channel to Lake Ōnoke, partially draining Wairarapa Moana. To protect Wairarapa Moana and the lakes' bountiful resources as well as to end decades of dispute over control of lake levels and the outlet at Onoke, Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua made a tuku rangatira (chiefly gift) of their lakes to the Crown in 1896."
- 3. With the lakes in Crown ownership, successive plans were considered for developing pastoral land in the lower Wairarapa Valley. This culminated in a scheme supported by the 1960s Wairarapa Catchment Board and central government to fundamentally alter the lower Ruamahānga catchment.

- 4. The Lower Wairarapa Valley Development Scheme (LWVDS) included the diversion of the Ruamāhanga river away from Lake Wairarapa, extensive dredging and stopbanking of the Ruamāhanga, diversion and stopbanking of other tributaries, pumped drainage, in-filling of wetlands, and installation of the control structure.
- 5. The control structure on Lake Wairarapa is a set of six radial barrage gates at the outlet of the lake. When opened the gates are raised up out of the water. When closed, the gates are lowered to prevent the flow of water in or out of the lake. The gates were formally commissioned on 15 March 1974 and are now owned and operated by Greater Wellington.
- 6. Additional developments were discussed in the 1970s and 80s. There were plans to reclaim parts of the remaining lakebed for pastoral farming through the installation of polders and further drainage. However, the Scheme ran out of government funding and local beneficiaries would have been unable to repay any extended loans.

Figure 1. Map showing position of barrage gates and floodways in relation to the lake.



## Te tātaritanga Analysis

## Primary purpose – flood retention

- 7. The primary purpose of the barrage gates is to dam water in Lake Wairarapa during flood conditions. This activity protects a large land area in the lower valley from flooding by using Lake Wairarapa as a flood detention dam.
- 8. During flood flows in the Ruamāhanga a series of overland floodways operate to divert water out of the Ruamāhanga, over land, and into the lake. The barrage gates dam this water for the duration of the flood. Closing the gates during a flood also prevents backflow of floodwater upstream into the lake from the lower Ruamāhanga, facilitating rapid transfer of floodwater into lake Ōnoke and out to sea.
- 9. When flood conditions have subsided the barrage gates are opened. Any retained flood water is released into the lower Ruamāhanga.

## Benefits/costs of flood retention capacity

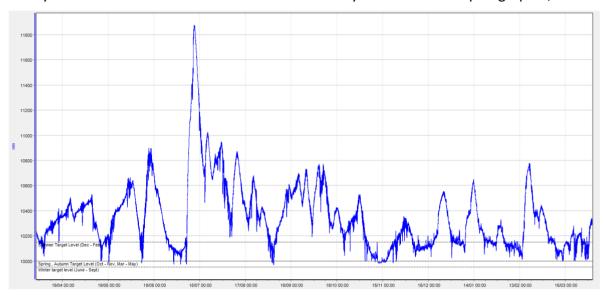
- 10. When considered together with overland floodways the barrage gates benefit the community by mitigating extensive flooding which otherwise would occur at peak Ruamāhanga river flows.
- 11. As part of the wider scheme the barrage gates impose costs on the Wairarapa Māori economy by degrading mahinga kai and limiting traditional activities. In conversation with iwi, and through submissions, we've heard the call for more holistic approaches to flood protection by working more closely with indigenous systems and knowledge.
- 12. Environmental connections between wetland, lake, lagoon and stream habitats in the lower valley have all been greatly reduced by the flood protection works. This development has reduced the extent and accessibility of habitat for plants and animals endemic and/or native to Wairarapa Moana.
- 13. The barrage gates (and wider scheme) were put in place to enable economic development of pastoral farmland which has benefitted from the security and protection from intermittent flooding that the barrage gates (and wider scheme) provide. The gates, as a critical component part of the wider engineering scheme, allow for land uses and investments that might not exist without it.

## Secondary purpose - lake levels

- 14. A secondary purpose of the barrage gates is to control the level of Lake Wairarapa. This is the main activity of the gates outside flood conditions and when the spit is open, i.e. most of the time the gates are opened or closed to control lake levels.
- 15. The barrage gates are opened and closed through a manually controlled system to keep lake levels at the minimum possible level within the following regime:

Season:	Summer	Autumn	Winter	Spring
Maximum:	10.3m above datum			
Minimum:	10.15m	10m	9.95m	10m

- 16. To help facilitate fish passage, and during normal conditions, two of the six gates are opened for one hour at high tides between 1 September and 30 November and at low tides between 15 December and 31 March, provided certain conditions are met.
- 17. Recorded lake levels over the past 12 months are represented below. The 11.8m recording in July 2022 coincided with the activation of floodways as described in paragraph 8, above.



## Benefits/costs of lake level purpose

- 18. Controlling lake levels is a delicate balance influenced by multiple values. Retaining flood retention capacity, enacting the National Water Conservation (Lake Wairarapa) Order 1989, impacts on surrounding landowners, recreational, cultural and environmental values are all affected by lake levels.
- 19. The gates facilitate higher lake levels, especially in summer, when river flows are low. The ability to maintain higher lake levels is seen as a key benefit of the gates.
- 20. Control of lake levels using the barrage gates is a cost to Māori values. When closed, the barrage gates sever the connection between the river, the lakes, and the sea, preventing natural circulation of water, and when combined with the diversion of the Ruamāhanga represent a fundamental alteration of the lake environment gifted to the Crown in 1896.
- 21. Mātauranga of historical lake levels includes knowledge that the lake was typically higher in summer than winter. In recent conversations with iwi representatives, and through submissions, we have heard the importance of higher lake levels during certain periods. We have also heard the view that all control of lake levels could be removed.
- 22. Fish passage through the barrage gates is a point of concern. The original design included provision for fish passage even when the gates were closed but the effectiveness of this design has been questioned. As noted above the gates are periodically opened to facilitate fish passage. Evaluation and monitoring of fish passage has been insufficient to draw conclusions.
- 23. Most environmental conditions around the lake are affected by lake levels alongside numerous other factors. For example, the extent and nature of freshwater habitat is highly connected to lake levels and their fluctuation. The volume and quality of river water entering

- the lake, sediment, wave conditions, salinity and other factors all influence environmental conditions.
- 24. Managed lake levels benefit recreational activities around the lake such as birding and gamebird hunting. By providing predictable and controlled lake levels the barrage gates allow for consistency of access year-on-year, including protection of tracks, hides/maimais and other infrastructure.
- 25. Managed lake levels also provide certainty for lakeside landowners. Grazing paddocks and associated infrastructure extend close to the lake edge and are protected by the existence of consistent lake levels.

#### The Water Conservation Order

- 26. The importance of lake levels for habitat is recognised in the 1989 Water Conservation Order. The Order states: "It is hereby declared that the wildlife habitat created in part as a consequence of the natural fluctuations of water levels, particularly over the eastern shoreline, is an outstanding feature of Lake Wairarapa." The Water Conservation Order is reproduced as Attachment 1.
- 27. Specific minimum lake levels were introduced in the 1991 Lake Wairarapa Wetlands Management Guidelines developed by the Lake Wairarapa Coordinating Committee set up to help implement the Order.
- 28. A maximum lake level was also recommended by the then Wildlife Service. It concluded Lake Wairarapa water levels should not go below 10.0m and not go above 10.3 m for long periods. The Wildlife Service also noted that regular variations in water levels are essential at all times of the year. A 1999 Department of Conservation (DOC) study concluded that:
  - "When the lake rises over about 10.3 m above datum, the normal feeding habitat becomes submerged and hence inaccessible, and so the birds are displaced to adjacent farmland and further afield. When the lake level drops, birds quickly return to the lake shore, indicating that this is their preferred feeding habitat."
- 29. Since 2020 the lake environment has been recognised as a wetland of international significance under the Ramsar convention. Under this convention any changes to the ecological character of the wetland would be considered by DOC for potential notification to Ramsar.

## Additional purpose – Lake Ōnoke

- 30. The gates are also used to assist the manual opening of Lake Onoke to the sea.
- 31. Following a closure of Ōnoke Spit, the barrage gates are closed to prevent Ruamāhanga river water from flowing up into the lake. This activity builds a head of water downstream in Lake Ōnoke for the purpose of assisting the opening with additional volume/flow.
- 32. This activity occurs several times a year.

## Benefits/costs of lake Onoke purpose

- 33. Artificial opening of Ōnoke spit is a traditional practise which can enable the Māori economy. Timing the opening to the appropriate season, and constructing an appropriate opening, enabled harvesting of large quantities of food.
- 34. Opening the spit is a permitted activity that Greater Wellington undertakes whenever the spit closes. This activity prevents flooding in the lower valley by ensuring Ruamāhanga river water has an open outlet to the sea.
- 35. During the season of the tuna heke, Greater Wellington is required to notify Tuhirangi Marae at Pirinoa before the spit is cut. This facilitates a cutting in line with Tuhirangi Marae purposes. This engagement is occurring at the time of writing, mid-March 2024, where the spit has closed over. A meeting will occur between Greater Wellington and Tuhirangi Marae to support activity such as eel harvesting.
- 36. Closing the barrage gates when the spit is closed prevents the circulation of water upstream from Ōnoke and into lake Wairarapa which would have historically occurred whenever the spit was closed. As noted above, this severs the connection between the various water bodies which, together, form the Wairarapa Moana environment.
- 37. Closure of the gates when the spit is closed may support maintenance of the target lake level in Lake Wairarapa, especially if the waters are already above the target level. Closing the gates to create a head of water also improves the efficiency of the spit opening by maximising the chance of a wide deep cut that is resistant to closing over again.

# What Greater Wellington Planning instruments say about the control structure and the control of the Lake

- 38. Lake Wairarapa is identified in the Natural Resources Plan (NRP) as inherently connected to mana whenua identity and the mana of the area.
- 39. The lake is recognised for numerous values in the NRP. These include recognition as having significant indigenous biodiversity values (both migratory fish habitat and indigenous bird habitat, being a regionally significant primary contact waterbody, and as Ngā Taonga Nui a Kiwa for both Rangitāne o Wairarapa and Ngāti Kahungunu ki Wairarapa).
- 40. Lake Wairarapa is specified a Category 1 surface water body in the NRP as a lake with outstanding indigenous ecosystem values for wildlife habitat. As an outstanding water body Lake Wairarapa is covered by a range of stronger rules relating to discharges and other water uses.
- 41. The lake is also covered by provisions in the NRP that seek to restore it to a healthy and well-functioning state (Objective 25 and Policy P7). Policy P37 states that adverse effects of use and development on Lake Wairarapa and wildlife habitat values shall be avoided.

## Rules relating to the barrage gates and lake levels

- 42. Operation of the barrage gates is covered by rules 147 and 149 which all relate to damming and diversion of water.
- 43. The NRP also sets minimum lake levels for Lake Wairarapa. The minimum levels in the plan are identical to the minimum levels stated in paragraph 15, above. There is no maximum lake level specified in the plan.

44. The NRP (Rule R.R3) prohibits any water take from the lake when it is below the specified water levels.

# What is different in the Regional Plan from when the control structure was last consented, that affects the control structure or management of the local environment

- 45. There are no changes to the regional plan since 2021 that affect the control structure or management of the local environment.
- 46. Te Mana o Te Wai statements for Wairarapa iwi have been received by Greater Wellington. They have been included as part of the current change to the regional policy statement, which is part way through the hearings process.

## **Treaty Settlements**

- 47. Recent changes brought about by Treaty Settlements, including ownership changes of the lakebed and some surrounding lands, offer an opportunity to explore alternative schemes and a different way of operating that give greater effect to relevant NRP Objectives and Policies.
- 48. The Wairarapa Moana Statutory Board is tasked with producing a natural resources document for the Ruamāhanga catchment including Wairarapa Moana. Interplay between development of this document and a review of the LWVDS presents a strong opportunity for collaboration.
- 49. The Te Rohe o Rongokako Joint Redress Act (s112) identifies the LWVDS, including barrage gates, and clarifies that Greater Wellington may continue to operate the scheme, and that (in s112(7b)) "the Statutory Board has no functions in relation to the existing Development Scheme."
- 50. Notwithstanding the relative roles of Greater Wellington and the Statutory Board, Greater Wellington is undertaking a review of the LWVDS with mana whenua partners and others.
- 51. Most recently, in November 2023, Greater Wellington met together with representatives of Kahungunu and Rangitāne to advance a shared review of the LWVDS including the barrage gates.

# How the control structure is consented and the consent conditions, and whose name the consent is in

- 52. The damming and diverting of water via the barrage gates were most recently consented in December 2021. Greater Wellington was the applicant and assessed the barrage gates as a non-complying activity due to an inability to ensure minimum lake levels.
- 53. The control structure is pre-RMA and in 2021 it was difficult to see how the application could gain consent under the regional plan. It could only be consented if the applicant was able to demonstrate it would be fanciful or unrealistic to consider the existing environment as if the barrage gates were not in operation.
- 54. Following significant work and legal input (on behalf of both the applicant and the consenting authority) it was demonstrated to be fanciful or unrealistic to assess the environment as if the barrage gates were not in operation.
- 55. Greater Wellington was ultimately granted a consent on this basis. The consent was non-notified.

#### **Consent conditions**

- 56. The consent has three main conditions:
  - Preparation of a certified Operations and Environmental Monitoring Plan (OEMP) for the barrage gates and an associated working group to discuss alternative operating regimes. Any alternative operating regimes must be approved by the regulator. The OEMP is where the minimum and maximum lake levels (paragraph 15, above) are codified as part of the consent.
  - A review of the Lower Wairarapa Valley Development Scheme including the level of flood protection, its operations and maintenance, and effects on the environment.
     This review is to consider climate change and the overall environmental effects of the whole scheme.
  - Annual monitoring and reporting of matters such as the actual lake levels, number of times that flood conditions prevailed, number of times Ōnoke spit was opened, etc.
- 57. The full wording of all conditions is included as **Attachment 2**.

## When the consent comes up for renewal and the process for that

- 58. The consent for the barrage gates, and the consent for other aspects of the LWVDS, both expire in 2027. The idea behind aligning the two consents was to renew them as part of a wider review of the scheme, conducted with mana whenua and other parties.
- 59. Greater Wellington is likely to recommend that the new consent application is notified.
- 60. Greater Wellington is seeking to work with mana whenua, the LWVDS scheme committee, and other parties to meet the existing consent conditions and renew the consent with appropriate new conditions.
- 61. To date the working group to develop alternative operating regimes for the barrage gates has not been convened. Agreeing an approach with mana whenua is the key next step. It would be an opportunity to agree cultural and environmental indicators as part of an Environmental Monitoring Plan, to review the minimum and maximum lake levels, and seek approval for alternative operating regimes. This could lead to the wider working group being convened in order to seek agreement, including with scheme members, DOC and South Wairarapa District Council.
- 62. Work is also underway to scope the size of a wider review to look at the long-term sustainability of the LWVDS in light of climate change and other factors. This is an opportunity to work with mana whenua on a shared investigations programme, align investment in restoration works, and set a shared direction. Both consent renewals are likely to be components but not the end product of a review, which will carry on beyond the consent renewal timeline.
- 63. A review of the scheme is an opportunity to pursue the objectives and policies outlined in the regional plan, to meet our Te Tiriti obligations, and enhance environmental health and resilience for future generations.

# Ngā āpitihanga Attachment

Number	Title
1	Water Conservation Order
2	WAR190233 consent conditions

# Ngā kaiwaitohu Signatories

Writer	Pete Huggins - Catchment	
Reviewed by	Tim Lewis – Area Engineer	
	Jacky Cox – Manager Logistics & Resourcing	
	Tracy Berghan – Manager Riverlink	
	Nicola Arnesen – Manager Policy	
	Wayne O'Donnell – Programme Manager Riverlink	
Approvers	Jack Mace – Director Delivery	
	Tash Styles – Acting Director Catchment	

### Attachment 1 – 1989 Water Conservation Order

## 1Title and commencement

(1) This order may be cited as the National Water Conservation (Lake Wairarapa) Order 1989.

(2) This order shall come into force on the 28th day after the date of its notification in the *Gazette*.

## 2Interpretation

In this order, unless the context otherwise requires,—

**Act** means the Water and Soil Conservation Act 1967

**Lake Wairarapa** means the more or less continuous area of water commonly known as Lake Wairarapa, including the Ruamahanga Cut-off, in Featherston County, the shoreline of which is the outer edge of the area within which the vegetation changes from predominantly aquatic to predominantly terrestrial, except at the outlet of the lake, where the shoreline is the lakeward foot of the barrage gates. For the avoidance of doubt it is declared that the shoreline adjacent to the land known as Lots 1 and 2 on Deposited Plan 4547 (Wellington Land District) is the lakeward foot of the stopbank on that land.

## **3Outstanding features**

It is hereby declared that the wildlife habitat created in part as a consequence of the natural fluctuations of water levels, particularly over the eastern shoreline, is an outstanding feature of Lake Wairarapa.

## 4Prohibition on water rights

(1)No right to divert any water within Lake Wairarapa shall be granted under section 21 of the Act.

(2)No general authorisation to divert any water within Lake Wairarapa shall be made under section 22 of the Act.

# 5Water rights and general authorisations

(1)No water rights shall be granted, and no general authorisation shall be made, in respect of any part of Lake Wairarapa if the effect would be to diminish significantly the outstanding wildlife habitat features of any part of the lake.

(2)Nothing in this order shall be construed as limiting the effect of the second proviso to section 21(1) of the Act relating to the use of water for domestic needs, for the needs of animals, and for or in connection with fire-fighting purposes.

(3) Nothing in this order shall prevent the renewal of any water right or general authorisation which is current on the commencement of this order.

(4)Subject to subclause (1), nothing in this order shall prevent the issue from time to time of water rights in connection with the barrage gates at the outlet of Lake Wairarapa.

Marie Shroff,

Clerk of the Executive Council.

# **Explanatory note**

This note is not part of the order, but is intended to indicate its general effect. This order declares that the wildlife habitat created in part as a consequence of the natural fluctuations of water levels, particularly over the eastern shoreline, is an outstanding feature of Lake Wairarapa.

The order also includes various provisions to preserve and protect the wildlife habitat.

## Attachment 2 – current barrage gates consent conditions

## **Consent conditions**

#### **General conditions**

- 1. The location, design, implementation and operation of the take shall be in general accordance with the consent application and its associated plans and documents lodged with the Wellington Regional Council on
- 28 February 2019 (application documents);
- 29 April 2019 (Buddle Findlay Memo 'GRE00500014 Reconsenting the operation of the Barrage Gates existing environment); and
- 09 July 2021 (Buddle Findlay NPSFM 2020 and NES Freshwater assessment).

Where there may be contradiction or inconsistencies between the application and further information provided by the applicant, the most recent information applies. In addition, where there may be inconsistencies between information provided by the applicant and conditions of the consent, the conditions apply.

Note: Any change from the location, design concepts and parameters, implementation and/or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.

## **Operations and Environmental Management Plan**

- 2. Within one month from the commencement date of this consent, the consent holder shall prepare and submit a final Operations and Environmental Monitoring Plan (OEMP) to the Manager, Environmental Regulation, Wellington Regional Council for certification. The OEMP shall include details of:
- a) The operation of the Barrage Gates under the five operating regimes;
- b) The process for the establishment of a OEMP working group to guide research and monitoring activities relating to the operation of the Gates and alternative Gate operation research modes approved in accordance with an Environmental Monitoring Plan (EMP);
- c) The process for submitting an EMP;
- d) Monitoring and annual reporting in accordance with condition 9 below;
- e) Complaints register in accordance with condition 10 below; and
- f) Review process for the OEMP.
- 3. The consent holder shall manage and operate the Barrage Gates in accordance with the OEMP at all times after its certification under condition 2 above.
- 4. An EMP shall be provided to the Manager, Environmental Regulation, Wellington Regional Council, for certification, 20 working days prior to monitoring recommended by the OEMP working group commencing. Certification will not be provided if the effects of the alternative way of operating are greater than those already occurring in the existing environment. An EMP shall include, at a minimum, the following detail:
- a) An assessment to demonstrate the effects of operating in an alternative way are not greater than those already occurring as a result of the Barrage Gates operation
- b) The purpose of the proposed monitoring programme;
- c) Description of the environmental effect that is being monitored;
- d) Duration of the monitoring period;
- e) Methodology for undertaking the monitoring and how the operation of the Barrage Gates may differ from the protocol within the OEMP:

- f) Risk assessment, including how any risk will be managed;
- g) Identification of potentially affected parties;
- h) Protocol for notification of landowners.
- 4A. If flood conditions arise when the Barrage Gates are being operated in accordance with an EMP, then regime 2 (operation of the Barrage Gates during flood conditions) will override the EMP. This is to ensure that a level of flood protection and safety is maintained to the surrounding landowners.
- 4B. If the Manager, Environmental Regulation, Wellington Regional Council receives an OEMP or EMP for certification, the Manager must, no later than 20 working days of receipt, certify the plan or decline to certify and give notice and reasons. If notice is not given, the plan is deemed to be certified. The consent holder may resubmit revised plans for certification.

Note: the 20 working day timeframe may be extended by written agreement from both Manager, Environmental Regulation and the Consent Holder.

- 5. No amendments may be made to the OEMP, unless they are certified by the Manager, Environmental Regulation, Wellington Regional Council.
- 6. At a minimum the consent holder shall review the OEMP by 30 November 2023. Amendments must be certified by the Manager, Environmental Regulation, Wellington Regional Council.
- 7. Within three months of the commencement of this consent (in accordance with the OEMP), the consent holder shall establish the OEMP working group.
  - Note 1: The working group is considered to be established when the consent holder has collated contact details for all group members and the group has been provided with a plan of how the working group is intended to be facilitated.
  - Note 2: The working group is not a decision making group but a forum for the formation of the EMP, dissemination of information from the consent holder and provides the opportunity to comment on consent compliance, monitoring and research, and to provide recommendations for changes to the operation and implementation of the EMP.

## Lower Wairarapa Valley Development Scheme Review

- 8. By 30 September 2026, the Consent Holder must submit to Manager, Environmental Regulation, Wellington Regional Council, a comprehensive catchment wide review of the Lower Wairarapa Valley catchment to understand the level of effects the Lower Valley Development Scheme is having on the environment. This review shall include but not be limited to:
  - a) Review the level of flood protection provided through the Lower Wairarapa Valley Development Scheme in light of climate change;
  - b) Review the currenhe
  - c) Understand and monitor the level of effect the operation of the Lower Wairarapa Valley Development Scheme is having on the surrounding environment;
  - d) Provide options and recommendations for changes to the management of the Lower Wairarapa Valley Development Scheme to improve environmental and cultural outcomes.

#### Monitoring and Reporting

- 9. The consent holder shall prepare an annual monitoring report covering the previous calendar year, to be submitted to the Manager, Environmental Regulation, Wellington Regional Council, no later than 15 February each year (except if consent is granted after 01 December 2021, then the first annual report is to be submitted by 15 February 2023), unless otherwise mutually agreed by written agreement from both Manager, Environmental Regulation and the Consent Holder. The report shall include as a minimum:
  - a) Record of flood events for the past year;
  - b) Record of lake levels and the number of times the target lake levels were met and not met;
  - c) Record of the number of days the Barrage Gates were operated during BAU conditions (including the number of times the Barrage Gates were open for fish passage and/or the Gates fish pass automator was disabled);
  - d) Record of when each operational regime (1-5 in OEMP) came into effect;
  - e) Record of the number of times Lake Onoke became blocked (as a result of no opening in the sand spit), the duration of the blockage and the weather conditions that caused the closure of the spit at the time:
  - f) Record of alternative operating regimes approved for research and monitoring purpose, when these were undertaken, the duration of these regimes, and the conditions under which these occurred:
  - g) Summary of actions taken/progress made by the OEMP Working Group;
  - h) Summary of any research and/or monitoring commenced and/or completed relating to the operation of the Barrage Gates under its different operational regimes, including the purpose of the research and/or monitoring, the methodology employed and the outcome/s of that work;
  - i) Summary of the findings of any research and/or monitoring specifically undertaken in accordance with the EMP:
  - j) A programme of planned/scheduled research and/or monitoring activity, and any related EMP for the next 12 months;
  - k) An indicative programme for the next three years of planned/scheduled research and monitoring to be undertaken;
  - I) Record of any complaints (in accordance with condition 10) regarding the operation of the Barrage Gates:
  - m) Record of any consultation with scheme owners, land owners, iwi and other potentially affected persons;
  - n) Summary of the outcome of any Kaitiaki monitoring; and
  - o) Summary of progress and/or actions taken to comply with condition 8;
- 10. The consent holder shall, for the duration of the consent, keep and maintain a complaints register to record any complaint received regarding the operation of the Barrage Gates, or alleged effects from the operation of the Barrage Gates. The complaints register shall include at a minimum:
  - a) The name and contact details of the complainant;
  - b) The nature of the complaint;
  - c) Location, date, time of the complaint and the alleged event;
  - d) Weather conditions at the time of the alleged event (as far as practicable);
  - e) Outcome of the consent holder's investigation in to the complaint;
  - f) Measures taken to respond to the complaint; and
  - g) Any other known activities in the area unrelated to the operation of the Barrage Gates that may have potentially contributed to the complaint.

The complaints register shall be provided to Manager Environmental Regulation, Wellington Regional Council, as part of the annual monitoring report required by condition 9 above and also made available to Wellington Regional Council at any time upon request.

### **Review condition**

- 11. The Wellington Regional Council may review any or all conditions of this permit by giving notice of its intention to do so pursuant to section 128 of the Resource Management Act 1991, at any time within three months of the annual anniversary of the date of commencement of this permit for any of the following purposes:
  - To deal with any adverse effects on the environment which may arise from the exercise of this (permit/consent), and which it is appropriate to deal with at a later stage.
  - To review the adequacy of any plan(s) prepared for this consent and/or monitoring requirement(s) so as to incorporate into the permit any modification to any plan(s) or monitoring requirement(s) which may become necessary to deal with any adverse effects on the environment arising from the exercise of this permit.
  - To alter the monitoring requirement(s) in light of the results obtained from any previous monitoring.

Wairarapa Committee 28 May 2024 Report 24.217



#### For Information

### WAIRARAPA FLOOD RISK MANAGEMENT UPDATE

## Te take mō te pūrongo Purpose

- 1. To update the Wairarapa Committee (the Committee) on:
  - a Wairarapa aggregate resource opportunities
  - b New funding received from the Department of Prime Minister and Cabinet's Cyclone Recovery Unit
  - c Implementation progress for the Te Kāuru Upper Ruamāhanga Floodplain Management Plan (TKURFMP); including progress of the Ministry for Environment (MfE) Jobs for Nature project
  - d Implementation progress for the Waiohine River Plan
  - e The ongoing operational maintenance of the Wairarapa Rivers schemes
  - f The progress of investigation projects; Waipoua Urban Catchment Plan, Mangatārere River Plan, flood hazard mapping for the Wairarapa Combined District Plan changes and regional initiatives.

## Te tāhū kōrero Background

2. Report 24.149 - Flood Risk Management Update, considered at the Committee's 9 April 2024 provides relevant background information.

## Te tātaritanga Analysis

3. This section provides an update on the Flood Protection works in the Wairarapa since the last Wairarapa Committee meeting.

### Wairarapa Aggregate Resource Opportunities

4. The project has moved to the next phase of planning for the future supply of aggregates across the region and securing access to those resources. We are drawing on the expertise engaged to undertake the Regional Industrial land study with the additional specific input of GNS. GNS will assist with creating an overlay of information required to determinate potential sites considering matters such as:

- a) Efficiency in access to end users
- b) Site size and features (gradient), for optimal operation
- c) Access to infrastructure
- d) Proximity to road and freight networks
- e) Proximity from sensitive land uses (residential areas etc)
- f) Avoidance of sensitive natural landscapes
- g) Access to labour force
- h) Land ownership e.g. public, iwi, private.
- 5. The sites identified through this process will then be ranked against the key criteria for further consideration. Further reports on this matter will be linked with the Regional Industrial Land Study reported to the Wellington Regional Leadership Committee.

## Government Funding – Department of Prime Minister and Cabinet.

## Crack Willow Blockage Removal Project

- 6. As stated in the last meeting report we were successful in obtaining \$3.5 million from the Department of Prime Minister and Cabinet (DPMC) for the Recovery and Flooding Resilience fund for the crack willow blockage removal in the eastern rivers in the Wairarapa. This decision was publicly announced on 6 October 2023. Our contribution is \$250,000 worth of project management time.
- 7. A steering group governance committee was established at the beginning of this project. It consists of officers from Finance, Catchment, Flood Management Plan Implementation, Flood Operations, Planting Operations, Land Air and Climate and Health and Safety. Steering group meetings are held monthly.
- 8. Phase 1 of the crack willow removal project has been completed with a focus on the Kopuaranga and the Whareama Rivers.
- 9. Up until 1 March 2024 we have removed 63 blockages and cleared approximately 21km of river channel. By the end of April, we have removed a total of 181 blockages, clearing approximately 62km of river channel. To date we have spent a total of \$351,504.00.
- 10. Through March and April 2024, we have spent \$287,549.00 on blockage removal. Please be aware that we were only able to start partway through Summer 23/24. We completed the following work:

### a Kopuaranga River

- i 47 blockage removals have been completed with 24km of river channel cleared to date.
- ii The blockage removals have included approximately 194 tree removals.
- iii Debris removal continues with a mixture of mulching and burn piles.

#### b Whareama River

i 71 blockage removals have been completed with 17km of river channel cleared to date.

- ii The blockage removals have included approximately 602 tree removals.
- iii Mulching continues, larger equipment has been implemented to mulch larger diameter trees.
- 11. In May 2024 we continue to clear blockages from both the Kopuaranga and Whareama Rivers with a focus on debris removal via mulching and burn piles.
- 12. Below are some images of blockages and removals.



Figure 1: Kopuaranga River – Pre blockage removal



Figure 2: Kopuaranga River – post blockage removal



Figure 3: Whareama River – blockage removal commenced



Figure 4: Whareama River – post blockage removal

13. We will continue clearing blockages and removing debris as long as the weather will permit.

- 14. Planting of the riverbanks will be required for stabilisation. We are currently working with DPMC and CIP around this as there has been some clarification of the contract required. The initial approval included planting, but DPMC is wanting Greater Wellington to fund this through our operational budgets. This will be difficult in the Tinui River especially. An update of the status of funding for planting will be given at the next Wairarapa Committee meeting.
- 15. During Winter months we will be planning for Phase 2. Work packages will be identified for the purpose of procurement. Multiple work packages will be awarded through a tendering process for the tree blockage removals within the Eastern Rivers of the Wairarapa.
- 16. Discussions with community groups continue through both the Catchment groups (Wairarapa Coast and Ruamāhanga), Flood Operations and Planting Operations teams, to ensure we are aware of all major blockages and can prioritise accordingly.

## Flood warning systems upgrade

- 17. In November 2023 Greater Wellington applied to DPMC again for further funding to assist in the Cyclone Gabrielle recovery. We put forward a further crack willow blockage removal application totalling \$5 million and an application for \$4 million for improvement flood warning systems.
- 18. On 24 January 2024 Greater Wellington received confirmation from DPMC on approved funding of \$1.25 million for flood warning system upgrades. We were unsuccessful in obtaining further funding for crack willow blockage removal.
- 19. We have received the approval to progress the project.

# Te Kāuru Upper Ruamāhanga Floodplain Management Plan – Implementation River Road, Masterton erosion protection works

- 20. Stage Two, the construction of a rock groyne and a 150-metre rock revetment, commenced on the 22 April 2024.
- 21. Public notification of the works has been completed as we are aware of how important this site is for the community and mana whenua. We have undertaken the following notices:
  - a A newspaper article advising the public of the project and the upcoming works.
  - b Project signage for the site.
  - c A flyer has been posted to residents' mailboxes along River Road and to the proximity of River Road.
  - d A Facebook post regarding the project and upcoming works.
- 22. Rock continues to be delivered to site with approximately 2,000 tonnes delivered to date.
- 23. The construction site has been established with the completion of the temporary river diversion, the implementation of the temporary beach (working platform) and the commencement of the haul road.

- 24. Programme progress is being regularly communicated to partners and stakeholders (including iwi, Fish and Game, Department of Conservation, and Masterton District Council (MDC)) via email correspondence.
- 25. Below are some images of progress to date.



Figure 5: Site 12: River Road – Stage 2 – Rock supply



Figure 6: Site 12: River Road – Stage 2 – Temporary river diversion commenced



Figure 7: Site 12: River Road – Stage 2 – Temporary beach implemented



Figure 8: Site 12: River Road – Stage 2 – Haul Road commenced

## Te Kāuru Upper Ruamāhanga Floodplain Management Plan – Operational work

## The Upper Ruamāhanga River Management Advisory Committee

- 26. The flood operations team has been completing the crack willow removal on the Kopuaranga River on behalf of the implementation team. This has been up and downstream of the Mauriceville township.
- 27. Beach recontouring work on Ruamāhanga river at Te Whiti continues to try and remove erosion pressures on left bank which have crossed outer fairway design line.
- 28. Gravel extraction operations at a range of sites in the Ruamāhanga river have been completed to assist with river alignment management.
- 29. Annual channel works in Waipoua river have been completed to remove vegetation growth, fallen trees in river channel and restacking of rock groynes.
- 30. Contractors have been working in Waipoua and Ruamāhanga rivers to poison old man's beard and ivy growth in willow tree buffer.
- 31. The Upper Ruamāhanga River Management Advisory Committee (URRMAC) has not met since 11 December 2023. The outcome of that meeting was for Greater Wellington to provide the committee with a draft 12-month meeting schedule outlining the purpose of each meeting for review Flood operations will be meeting with the committee chair to present the proposed schedule of meetings in the last week of May. The next URRMAC meeting is scheduled for the last week of June.

## Te Kāuru Upper Ruamāhanga – Investigations

## Waipoua investigations

- 32. The investigations with the Waipoua Catchment Community Group are progressing.
  - a The flood damages assessment will be delivered in June 2024.
  - b A specialist hydraulic modeller is being procured to deliver the optioneering assessment.
  - c The geomorphic assessment of the Waipoua catchment is still on track to be delivered by the end of June 2024.
  - d The Waipoua stopbanks geotechnical investigations have started and, results will be available in September 2024.
  - e The delivery of a preferred option is programmed for Dec 2024.

### Flood Hazard Modelling

- 33. Flood hazard mapping for the Upper Ruamāhanga is progressing through its final peer review and is being prepared for independent Audit.
- 34. The independent audit is being undertaken on the Waipoua flood hazard modelling. This is nearing completion and the flood hazard modelling for the Waipoua finalised.

#### Waiōhine River Plan - Implementation

35. A tender process for obtaining a design/engineering consultant closes on 17 May for the development of the final design for both the North and Kuratawhiti stopbanks.

- Matthew Gardiner of Land, River Sea Consulting will a re-run the flood modelling and work closely with the design consultant.
- 36. The next stage is to present the final design to the directly affected landowners in a hope to obtain their affected party sign off before we proceed to applying for consent to build.
- 37. We have been in discussions with the directly affected landowners and will continue to keep them up to date with our progress.

## Waiōhine River Plan - Operations

- 38. The rock delivery for Fullers Bend will occur before the end of June 2024, ready for future work the coming construction season in February 2025.
- 39. Erosion protection works for South Wairarapa District Council (SWDC) water supply borefield above rail bridge which consisted of 240m of bed contouring and 176m of gravel groynes was completed, costing \$20,000.
- 40. Erosion protection works which consisted of 430m of beach recontouring was completed below rail bridge costing \$14,000.
- 41. Crack willow removal over a 230m stretch of right bank at Fullers bend was completed in preparation for replanting with natives this winter.
- 42. Additional track work was completed at Greater Wellington land at Kuratatwhiti Street to provide more public access walking options.

### Mangatārere Stream - Operations

- 43. There has been erosion outside of the Mangatārere Stream Scheme boundary that has increased the flood risk to the Carterton township. Because this location is outside of the scheme, a resource consent application to repair the erosion was prepared and submitted but has been withdrawn due to lack of iwi consultation. A site meeting was held with hapū representatives on 28 August 2023 to listen to concerns in repairing the erosion site. Other options were discussed onsite. Feedback from hapū members has been received and incorporated into a revised consent application.
  - The new revised consent application is currently being processed and flood operations has received the draft conditions of the consent. The draft conditions do not allow for the proposed work to be undertaken and are currently being discussed with Environmental Regulation.
- 44. Greater Wellington has also met with Carterton District Council (CDC) to highlight the risk to the town from this erosion, and to further discussions on managing flood risk from the Mangatārere Stream.

## Mangatārere Stream – Investigations

45. No change to report in the Mangatārere Stream flood management plan. We are still in discussions with Rangitāne o Wairarapa on a path forward.

## Lower Wairarapa Valley Development Scheme - Operations

- 46. The contractor that holds the contract to open the outlet from Lake Onoke has entered liquidation. We have arranged with another contractor that they will be able to respond to short notice requests to open the outlet. The lake opening contract was due to expire in December 2024 and so we will bring forward the procurement of a new contractor for this activity.
- 47. The Ruamāhanga River below the Waiōhine confluence has seen gravel extraction from aggrading beaches and significant bed recontouring to mitigate against ongoing erosion at Papawai. This work is now complete.
- 48. Vegetation control (mowing, herbicide spraying, mulching etc) has been taking place in multiple locations over the scheme.
- 49. Bed recontouring works immediately downstream of Waihenga Bridge, primarily for erosion protection purposes but also to reinstate public access to the downstream beach, have been completed.
- 50. The capital works project to realign the stopbank in the Mahaki Road area of the Ruamāhanga has not been able to commence this season. Additional works in advance of the main works are underway to help mitigate against further erosion during the wet season.
- 51. The capital works project to remove the old stopbank at Pukio is well underway. A Wairarapa farm is building an effluent storage pond, and we were able to sell some of the material to them, which has reduced costs. The majority of the material has now been carted away, with the rest of the material being used to repair adjacent erosion sites. Provided that the weather remains dry then we hope to complete the work in around a month's time.
- 52. An agreed work methodology has been developed in conjunction with local Iwi for works in the Tauanui and Turanganui Rivers. Provided river levels stay low, this work is planned to be completed before 1<sup>st</sup> August.

### **Drainage Scheme – Operations**

- 53. An inspection on the second pump at Te Hopai has revealed that it is in a corroded state and replacement parts will be required, which are now on order.
- 54. Repair of the flap gates at Te Hopai have now been completed and they are both fully operational.
- 55. Growth of celery weed in the roadside parts of Battersea and Manaia drains has been prevalent this summer, with parts of the drains requiring three weed control interventions over the growing season.
- 56. For the non-pumped, gravity drainage schemes the costs of the scheme have been greater than the scheme income. Meetings with the gravity scheme members regarding a review of future maintenance works and rating requirements for each drain have been held, but attendance was poor. Following internal discussion and advice from Councillor Staples, Greater Wellington has agreed that:

- a The costs of Greater Wellington's work on each scheme should be fully covered by each scheme's targeted rates.
- b Targeted rates are likely to increase two-three times, which could mean that scheme members currently paying a higher targeted rate could be significantly impacted.
- We will give each scheme the opportunity to manage the scheme themselves, without Greater Wellington intervention, but will need 75% of the scheme members to agree this.
- d There is no appetite currently to change how the targeted rate is distributed amongst scheme members or to enlarge or reduce the extents of the schemes.

## Lower Wairarapa Valley Development Scheme – Investigations

57. Mapping for Donalds and Abbots Creeks is progressing well, with the hydrology passing its peer review, the data has been passed on to the hydraulic modellers. Calibration engagement is anticipated in June 2024.

## New Building (Dam Safety) Regulations 2022

- 58. The Building (Dam Safety) Regulations 2022 [Regulations], which came into effect on 13 May 2024, impose clear responsibilities on dam owners. These Regulations mandate dam owners to undertake Potential Impact Classification (PIC) assessments for each dam that is 'classifiable' under the Regulations and to submit these to the Regional Authority before 13 August 2024.
- 59. The PIC of a dam reflects the potential impact its failure could have on the community, historical or cultural places, critical or major infrastructure, and natural environment.
- 60. Dams are 'classifiable' if they are 4 or more metres in height and store 20,000 or more cubic metres of water, or other fluid.
- 61. Damwatch Engineering consultants have been engaged to confirm whether the Barrage Gates meet the definition of a 'classifiable dam' as per the Regulations. Damwatch are also engaged to undertake a PIC assessment for the Barrage Gates, which will be submitted to the Regional Authority before 30 June 2024.
- 62. The Donald's Creek Detention Dam (DCDD) does not meet the definition of a classifiable dam as it is less than 4 metres in height, and therefore is not impacted by the requirements of the Regulations. However, as responsible dam owners, Greater Wellington will continue to manage safety risks associated with DCDD.
- 63. Damwatch Engineering have been engaged to undertake a Failure Modes and Effects Assessment (FMEA) on DCDD. The FMEA site visit was completed with Greater Wellington staff on 8 May 2024, with an FMEA workshop on 15 May 2024. The FMEA report will be available by 30 June 2024. The outputs of the FMEA will inform the operations, maintenance, and surveillance procedures for DCDD.

## Ministry for the Environment 'Jobs for Nature' Project Update

64. Site preparation for the coming winter 2024 planting season is ongoing. With the lack of rain there planting has been delayed ensuring adequate survival rates. It is scheduled to start in June once soil moisture levels improve.

- 65. Pest animal control is continuing across all sites with a variety of pest animal species continuing to be caught. Ongoing surveillance across all sites continues.
- 66. Fencing activities start later this month or early June.

## Ngā hua ahumoni Financial implications

#### Crack Willow Removal, Early Flood Warning Systems upgrade and MfE Projects

67. Some of these projects are being funded with budgets being brought forward in the Long-Term Plan (LTP). Others are direct government funding with project management time as Greater Wellington's contribution.

#### Crack Willow Removal

Government Funding	DPMC – Cyclone Recovery Unit
Opex allocated:	\$250,000 (LTP 2018-28)

#### **Early Flood Warning Systems**

Government Funding	DPMC – Cyclone Recovery Unit
Capex allocated:	\$TBC (LTP 2018-28)

## Ruamāhanga River Scheme River Road (Stage 2):

LTP or Annual Plan description:	Te Kāuru Capex Implementation
Capex allocated:	\$2.54 million (LTP 2018-28)

#### Project 4: Ruamāhanga River Major Rivers Riparian Management Project (MfE):

LTP or Annual Plan description:	Wairarapa River Scheme Maintenance
Loan allocated:	\$0.8 million (debt)
Internal Funding:	\$1.7 million (LTP 2018-28)
Third Party Funding	\$2.5 million

## Ngā Take e hāngai ana te iwi Māori Implications for Māori

- 68. Greater Wellington is required to manage land and water within a range of statutory requirements, including giving effect to Te Mana o Te Wai and considering Te Tiriti o Waitangi in the development and implementation of the Council's strategies, plans, programmes and initiatives.
- 69. Implementation with mana whenua partners is guided by Te Whāriki the new Māori Outcomes Framework as part of Council's LTP 2021–31.
- 70. We are continuing to explore opportunities for Māori through our work.
- 71. Cultural liaison or co-design contracts have been signed by Rangitāne ō Wairarapa Incorporated and Ngāti Kahungunu ki Wairarapa Charitable Trust for enhanced involvement and collaboration on programme work for the Climate Resilience Projects.

## Te huritao ki te huringa o te āhuarangi Consideration of climate change

- 72. Each project within the catchment considers and responds to the predicted impacts of climate change when considering the appropriate response to the issue the project seeks to address.
- 73. This programme aligns with the 2015 Climate Change strategy, which states 'we will help the region adapt to climate change'. The projects increase climate change adaptation and resilience to natural disasters in the region.
- 74. The greenhouse gas (GHG) emissions from rock supply vary depending on the quarry source of the rock and transport to the work sites. Quarry sources for projects vary. The emissions from rock supply production and transport are not presently part of the organisation's GHG inventory.
- 75. Targeted planting has been carried out to mitigate CO₂ emissions for the Kānoa projects.
- 76. Greater Wellington currently assesses options to address flood risk based on the predicted impacts of climate change over the next 100 years. Unless specified differently for specific projects, these values are an increase in rainfall intensity of twenty percent, and a sea level rise of 0.8 metres.

## Ngā kaiwaitohu Signatories

Writers	Madeliene Playford – Senior Project Manager, Floodplain Management Plan Implementation		
	Andy Brown – Team Leader Knowledge – Water		
	Hamish Fenwick – Team Leader Flood Operations Delivery		
Approvers	Tina Love – Team Leader, FMP Implementation, Logistics and Resourcing		
	Jacky Cox – Manager Logistics and Resourcing		
	Evan Harrison – Manager Knowledge		
	Myfanwy Hill – Manager Environment Operations		
	David Hipkins – Director Knowledge and Insights		
	Jack Mace – Director Delivery		
	Lian Butcher – Kaiwhakahaere Matua, Taiao   Group Manager, Environment		

## He whakarāpopoto i ngā huritaonga Summary of considerations

#### Fit with Council's roles or with Committee's terms of reference

The Committee is to consider areas and matters of strategic importance to the Wairarapa and recommend to Council on these matters.

#### Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

The projects contained within this report deliver on Greater Wellington's strategic priority area of te tū pakari a te rohe/regional resilience, and support delivery of Greater Wellington's strategic priority area of te oranga o te wai māori me te rerenga rauropi/freshwater quality and biodiversity.

All river matters discussed here are included in the LTP.

#### Internal consultation

Specific projects consult with groups and departments across Greater Wellington where relevant to a project.

#### Risks and impacts - legal / health and safety etc.

The purpose of implementation floodplain management plans in implementing asset management procedures is to reduce the risk to communities and improve the region's resilience. Greater Wellington has adopted procedures and processes to minimise risks. Working with community committees enables a wider understanding of the risks before adoption of work programmes.

Wairarapa Committee 28 May 2024 Report 24.215



#### For Information

## RUAMĀHANGA WHAITUA IMPLEMENTATION PROGRAMME PROGRESS REPORT AND UPDATE ON WAIRARAPA COAST WHAITUA

## Te take mō te pūrongo Purpose

- 1. To inform the Wairarapa Committee on the Ruamāhanga Whaitua Implementation Programme (WIP).
- 2. To inform the Wairarapa Committee on the development of the Wairarapa Coast Whaitua.

## Te tāhū kōrero Background

- 3. The Whaitua process was established by Greater Wellington and the community in order to implement national direction under the National Policy Statement for Freshwater Management 2020 (NPS-FM).
- 4. The process considers freshwater management in the context of a catchment, working with mana whenua and the relevant communities to establish vision, values and recommended actions to meet environmental outcomes.

#### Ruamāhanga

- 5. Greater Wellington received the Ruamāhanga WIP in 2018 and has been reporting progress through the Environment Committee.
- 6. The most recent WIP progress report (November 2023) is included as **Attachment 1** to this report and is published on the GW website.
- 7. Non-regulatory work programmes are central to the Ruamāhanga WIP. Some of these are fully integrated into Greater Wellington's work, including:
  - a support for landowners to implement Good Management Practice such as cofunding for farm planning, fencing, and planting.
  - b riparian planting and in-river activities that seek to minimise habitat destruction during flood risk management work.
- 8. The timing of plan changes to implement regulatory aspects of the Ruamāhanga WIP is uncertain and is proposed to be addressed in a report for Council consideration on 27June 2024.

#### Wairarapa Coast

- 9. The Wairarapa Coast Whaitua was scheduled to begin in the second half of 2023 with the purpose of giving effect to the NPS-FM by the December 2024 deadline. The Government extended the December 2024 deadline to December 2027. Implications of this new timeframe and incoming changes to the NPS-FM are currently being considered.
- 10. The approach for the Wairarapa Coast Whaitua will be determined with mana whenua and community and this discussion has not begun in earnest yet, although a number of early connections have occurred.

#### **Update May 2024**

#### Ruamāhanga

- 11. WIP recommendations relating to Wairarapa Moana are being advanced through the existing Wetlands Project and through a review of the Lower Wairarapa Valley Development Scheme (see report 24.219).
- 12. Work on water efficiency, land use and water allocations will be conducted with territorial authorities and others through a work programme under the Wairarapa Water Resilience Strategy (WWRS). This strategy has extensive crossover with recommendations in the Ruamāhanga WIP and identifies the WIP as a key companion document. Since November 2023, an interim governance group has been established to advance a work programme under the WWRS (see report 24.216).
- 13. The SkyTEM aerial survey data is being cleaned and calibrated through the partnership with GNS. Current technical activities include planning potential calibration bore drilling and model design. GW officers have also been meeting with the Wairarapa Water Users Society to discuss how SkyTEM information, consents, and allocations policy may interact.
- 14. The Wairarapa Catchment Collective has recently received funding from MPI and will be responsible for coordinating and supporting catchment community groups. Greater Wellington is working in a partnership with the Wairarapa Catchment Collective and Mountains to Sea Wellington. The strength of this partnership will ensure that collective time and resources are leveraged and coordinated. Many WIP recommendations can and are being progressed through local action plans.
- 15. Investigations were undertaken in the Parkvale catchment between 2023-2024 to understand more about the interactions between surface and ground water flows and the water quality. Greater Wellington has been working with the Parkvale Catchment group to design the science investigation questions and learn more together about the interesting interactions of water that occur here. The Parkvale Catchment has high levels of E.coli and Nitrogen.

#### Wairarapa Coast

16. For the Wairarapa Coast Whaitua, a different approach to the previous Whaitua processes is proposed. This draft approach is designed to take a whole of the catchment perspective with the intent to develop an implementation-led catchment plan that is broader in focus. It would bring together hapū and iwi values with the rural catchment

- community visions and outcomes to inform decisions based on sub-catchment priorities.
- 17. This catchment plan would encompass other related activities, e.g., freshwater action plans, farm plans, community catchment action plans. Work is underway on how these examples could be woven together in an integrated plan and connected process or processes, which can then be tested against NPS-FM requirements as well as lessons from Kāpiti and other Whaitua processes.

## Ngā Take e hāngai ana te iwi Māori Implications for Māori

#### Ruamāhanga

- 18. Making progress towards the Ruamāhanga WIP objectives will help to restore Māori connections with freshwater and provide for some aspects of Te Mana o Te Wai.
- 19. The mauri of water bodies is a key value expressed in the WIP, alongside the tuna fishery and mahinga kai.
- 20. Whaitua is also a key mechanism for enhancing mana whenua involvement in the governance and management of freshwater in the Ruamāhanga.

#### Wairarapa Coast

21. The approach for the Wairarapa Coast Whaitua will be determined with mana whenua.

## Ngā tūāoma e whai ake nei Next steps

#### Wairarapa Coast

22. Council is meeting in May 2024 to discuss potential timing and sequencing of Plan Changes related to NPS-FM 2020.

## Ngā āpitihanga Attachment/s

Number	Title
1	Ruamāhanga WIP Report November 2023

## Ngā kaiwaitohu Signatory/Signatories

Writer/s	Pete Huggins – Catchment Manager - Ruamahanga
	Tash Styles – Catchment Manager – Wairarapa Coast
Approver/s	Nicola Patrick – Director, Catchment
	Lian Butcher – Group Manager, Environment

## He whakarāpopoto i ngā huritaonga Summary of considerations

#### Fit with Council's roles or with Committee's terms of reference

The information in this report on WIP development and implementation is a matter of importance for the Wairarapa.

#### Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

The Whaitua Programme contributes to Council's obligations to give effect to the NPS-FM through engagement with mana whenua and the community.

#### Internal consultation

This report was prepared by Catchment.

## Risks and impacts - legal / health and safety etc.

There are no known specific risks and impacts related to this report beyond the constrained circumstances as outlined.

# Ruamāhanga Whaitua Implementation Programme (WIP) Progress Report

#### **November 2023**

#### **Report Purpose**

This report provides an update on progress made with implementing the recommendations of the Whaitua Implementation Programme (WIP), developed by the Ruamāhanga Whaitua Committee, and received by Greater Wellington (GW) in August 2018. The previous report was in June 2023.



Whaitua Highlight - Wairarapa Moana Wetlands Restoration Project 22/23

The project planted 30,500 native plantings between July 2022 and June 2023 over 8.16 hectares, supporting the whaitua objectives of habitat restoration generally and wetlands specifically.

Funding last financial year was made available to iwi partners to pursue their own investigations and studies into Wairarapa Moana fish populations and water quality as well as pursue their own plans and ideas to reconnect with Wairarapa Moana. The project supported Kohunui Marae Nursery by purchasing plants from them this winter, and will continue to support them with future plantings. These are small steps towards a partnership approach to whaitua implementation.

Supports delivery of recommendations: 29 and 31



#### Whaitua Highlight - Major River Project 22/23

This reach on the Ruamāhanga in South Wairarapa was fenced (6.6km) and planted in the 22/23 year. The work is 100% funded between GW and MfE and directly contributes to the whaitua objective of restoring ecological habitats. The old oxbow and wetland at the top right of picture are being planted through the current Spring.

Greater Wellington has worked with two Wairarapa nurseries, Pae tū Mōkai o Tauira in South Wairarapa and Norfolk Road Nursery near Masterton to source plants for this work.

The Major River project is aiming for 100ha, 150,000 plants and 30km of fencing across the region.

Supports delivery of recommendations: 29, 44, 54

#### **Implementation of Regulatory Recommendations**

NRP Chapter 7 includes minimum flows and allocation limits in the Ruamāhanga. While these are only recently operative, the analysis used to produce them pre-dates the NPS-FM 2020 and the 2018 WIP recommendations. A number of 'sunset clauses' are included in the plan in recognition of this.

Plan changes to adopt new minimum flows, allocation rules and other target attribute states will be informed by WIP recommendations and other inputs in due course. Greater Wellington will be working with mana whenua and wider community as we develop these final proposed numbers for the plan.

#### Implementation of Complementary Measures (non-regulatory recommendations)

Non-regulatory work programmes are central to the Ruamāhanga WIP.

Some complementary measures are fully integrated into Greater Wellington's work. These include:

- support for landowners to implement Good Management Practice such as co-funding for farm planning, fencing, and planting.
- riparian planting and in-river activities that seek to minimise habitat destruction during flood risk management work.

Greater Wellington also leads or partners on special projects such as the Wairarapa Moana Project and Major River Project that provide non-regulatory pathways to WIP objectives.

The attached table (Appendix 1) provides information and analysis on WIP recommendations for non-regulatory programmes. This update provides some additional detail to the previous (June 2023) report.

#### **Community partnerships**

Collective action is a key principle within the Ruamāhanga WIP. Support for mana whenua participation and leadership is outlined in the first recommendation.

The following key activities to advance collective action have occurred since the previous (June 2023) report.

Description	Date	Notes
Meetings with former whaitua committee members	July / August	Former committee members were sent copies of the June 2023 report
Wairarapa Moana Steering Group hui	27 July	
Wairarapa Collective steering group meeting focused on catchment community group support (MPI, Mountains to Sea, Catchment community leadership, Greater Wellington, WaiP2K)	28 July	
Relationship meeting, Catchment Function and Rangitāne ki Wairarapa	25 August	
Presentation to Combined Council meeting on Wairarapa Water Resilience Strategy (WWRS)	30 August	The WWRS incorporates and endorses the water resilience recommendations in the Ruamāhanga WIP
Relationship meeting, Catchment Function and Kahungunu ki Wairarapa	20 October	
Establishment Governance Group meeting for the WWRS	09 November	Councillors and CEs from relevant territorial authorities met with GW and agreed to collaborate on a work programme

#### Whaitua objectives

We're exploring ways to make whaitua objectives relating to mauri, habitat, fish and mahinga kai more visible and connected to work programmes across the Environment Group.

Operating at the level of objectives may help us to partner better with external organisations and groups.

The whaitua objectives are listed below:

#### Mauri, natural form and character and habitat objectives

- The mauri of water bodies is enhanced by restoring ecological habitats (such as through riparian planting), improving water quality and ensuring that healthy and abundant mahinga kai is readily available.
- The rivers, streams, lakes and wetlands in the Ruamāhanga whaitua have diverse natural characteristics (e.g. riffles, pools, runs, backwaters and wetland margins) suitable to support abundant and healthy indigenous fauna and taonga species.
- Significant indigenous ecosystems in rivers, lakes and wetlands are protected and restored, including habitat for threatened and/or at-risk species, migratory fish and īnanga spawning (as identified in Schedule F of the PNRP).
- Indigenous fish and taonga species are able to access all tributaries of the Ruamāhanga system
  from the coast and lowland wetlands, up to and including first-order streams, throughout the
  catchment to complete their life cycles.
- Adequate habitat space is provided for the life-supporting capacity of indigenous fish and other aquatic life in rivers and streams, including at times of low flow.

#### Fish and mahinga kai objectives

- Tuna fishery is restored and populations are healthy and can sustain recreational and customary harvests
- Wetlands are restored and their extent increased to support thriving mudfish, īnanga spawning and tuna populations
- Urban streams are protected from development and piping to support tuna, k\(\bar{\partial}\) kopu and redfin bully
- Exotic fish populations are at a level where they are not restricting the vitality of indigenous fish populations and the ability of mana whenua to undertake mahinga kai harvests
- Marae and mana whenua urban communities have access to abundant and healthy mahinga kai species that are safe to eat and are available in quantities that enable sustainable harvests and support the manaakitanga of Wairarapa marae communities
- Watercress is abundant and healthy, safe to eat and free from spray and other contaminants

Appendix 1 – November 2023 update - Complementary Measures - Ruamāhanga Whaitua Implementation Programme

	Recommendation wording Implementation		· .	
Rec#	Recommendation wording		Nov 2023 Comment	June 2023 Comment
		category		
	Greater Wellington will:	To be	Greater Wellington is	New deliverable name:
	<ul> <li>Support mana whenua as active partners in</li> </ul>	commissioned	meeting regularly with	Partnering with marae.
	the management of the Ruamāhanga whaitua	by deliverables	Kahungūnu and	Greater Wellington led (Te
	Work in partnership with mana whenua to		Rangitāne to advance	Hunga Whiriwhiri team).
	develop a management structure that includes a		aspects of whaitua	This will be a dedicated project
	permanent role for hapū/marae at the FMU level		implementation with	with a focus on creating
	Work in partnership with mana whenua to		mana whenua as active	structures and ways of working
	establish and resource a kaitiaki support structure		partners.	with hapū and marae together
	that ensures that Ruamāhanga whaitua hapū and		A dedicated project to	(by working through marae).
	marae are enabled to participate fully in FMU and		pursue this specific	Some existing work is
	catchment community planning, including:		recommendation	underway with hapū and
	<ul> <li>Identification of indicators</li> </ul>		through a more formal	marae through individual
	Monitoring programme		structure and approach	projects. This project will need
1.1	Kaitiaki training		could be a result of these	to be aware of this work and
	Development of matāuranga Māori		meetings.	could learn lessons about what
	<ul> <li>Ensure that sufficient funding and</li> </ul>			is working e.g., from the
	dedicated resourcing to enable mana whenua			Gladstone cluster.
	participation are available as soon as the			
	implementation of an FMU/freshwater objective			
	framework begins			
	<ul> <li>Establish operative roles for mana whenua</li> </ul>			
	and hapu/marae in the management of water			
	quality and quantity and river management	-		
	activities in the Ruamāhanga whaitua			
	<ul> <li>Support hapū/marae to develop their own</li> </ul>			
	indicators for each FMU, including one for	-		
	Ruamāhanga as a whole. This process to start as	;		

	soon as the implementation of an FMU/freshwater objective framework begins  Include hapū/marae indicators in reporting on progress towards meeting freshwater objectives  Establish and support the process for mana whenua analysis and interpretation of hapū/marae indicators  Encourage and work with mana whenua on the development and inclusion of mātauranga Māori innovative regulatory and non-regulatory approaches to achieving improved water quality			
5	<ul> <li>Seek to be a comprehensive, catchmentwide system that increases ecological and social health and wellbeing as well as improving water use reliability</li> <li>Create resilience to the pressures of changing weather systems under climate change</li> <li>Empower communities to identify and implement suitable processes and management options in their sub-catchments in order to contribute to the whaitua-wide approach.</li> </ul>	deliverables to implement	working as part of the Wairarapa Collective to support landowners and catchment communities in suitable management choices. Greater Wellington is working with territorial authorities and others to establish a work programme under the Wairarapa Water Resilience Strategy.	These directions feed into the Catchment planning processes underway.
6	objectives, limits and policy packages described in this WIP,	deliverables to implement	working as part of the Wairarapa Collective to	These are guiding high-level principles and outcomes, achieved through other recommendations, rather than having deliverables themselves.

	A marinto man manulatamo a consello te			
	<ul> <li>A mainly non-regulatory approach to staying within discharge limits for diffuse</li> </ul>			
	contaminants			
	An emphasis on the use of integrated			
	planning tools (sub-catchment groups, farm			
	planning tools (sub-catchinent groups, rain) planning tools and user groups), supported by			
	education and incentives			
	<ul> <li>Regulation of point-source discharges of</li> </ul>			
	contaminants, land use activities and water takes			
	Seeking means for promoting and ensuring     continuous improvement and impossing agrees all			
	continuous improvement and innovation across all sectors and communities			
	Collecting and making available information     resource use in the whoituges a way of each ling.			
	on resource use in the whaitua as a way of enabling			
	better decision-making at all scales.			The stand we of Cueston
			•	The stand up of Greater
	develops a coherent FMU implementation framework that imp	· ·		Wellington's new Rōpū Taiao
_	results in effective and successful managing to limits at an			Environment Group in May
/	FMU scale, in both rural and urban environments, to			2023, including the
	achieve freshwater objectives.		•	introduction of catchment
			l'	plans will encompass this
			this recommendation.	
	Greater Wellington resources the Freshwater Management Cur	, -	•	To be provided through the
	Unit Implementation Framework sufficiently to support the imp	plemented		stand up of Greater
	development of an implementation work programme.			Wellington's new Rōpū Taiao
				Environment Group in May
8				2023, the introduction of
				catchment plans, and the
				inclusion of implementation
				work in the Long Term Plan
				(LTP) if necessary.
	,		•	Aligns with the Greater
10.3	, ,	olemented	Y	Wellington Policy Effectiveness
	facilitated by Greater Wellington, including by:			

	<ul> <li>Actively reviewing the effectiveness of the implementation of Greater Wellington operational activities and planning practices and of the recommendations in this WIP in order to promote continued improvement and learning, and to ease bottlenecks</li> </ul>			Monitoring Programme (Environmental Science team).
10.4	Ruamāhanga whaitua should be encouraged and actively	commissioned by deliverables		New deliverable name: Review of GW processes which hinder innovation. Greater Wellington led. Workshop that culminates in a report with recommendations for improved practices and processes internally to support land and water management practices externally. Should consider innovation across new Rōpū Taiao Environment Group. Should include reviewing policy effectiveness related to plans. May include identifying opportunities to use science and other knowledge, and external partnerships and tools.
11.1	The Committee recommends that:  • GMP be emphasised and innovation fostered as part of every farm plan and by the operational practices of Greater Wellington and territorial authorities in the Ruamāhanga whaitua  • Industry guidelines are the primary source of GMP guidance	implemented	Greater Wellington is working as part of the Wairarapa Collective to support landowners and catchment communities in suitable management choices.	Industry Good Management Practice (GMP) is already being utilised by Greater Wellington. Note: All new and reviewed farm plans include this. However, not all existing farm plans have been

	<ul> <li>Sub-catchment groups, communities and industry bodies help to develop and apply appropriate GMP specific to the identified requirements of FMUs</li> <li>As Greater Wellington cannot implement GMP on its own, it develops partnerships with industry, stakeholders and communities for supporting the implementation and adoption of GMP, with the critical role of industry recognised.</li> </ul>			reviewed/updated to include GMP.
12.1	The Committee recommends that water use efficiency be improved among all water users in the Ruamāhanga	commissioned by deliverables	Greater Wellington is working with territorial authorities and others to establish a work programme under the Wairarapa Water Resilience Strategy.	New deliverable name: Water Conservation Programme. Proposed that this be led by Masterton District Council, Carterton District Council and South Wairarapa District Council (or Wellington Water on their behalf). Each of the above Councils would lead their own document.
12.2	,	implemented	Greater Wellington is working with territorial authorities and others to establish a work programme under the Wairarapa Water Resilience Strategy.	Being delivered through farm plan tools.

12.3	improved among all water users in the Ruamāhanga	To be commissioned by deliverables	the purpose of identifying the correct regimes under freshwater regulations for natural waterways. The Opaki water race consent has been submitted with the intention of closing the race in 2026. Greater Wellington is working with territorial authorities and others to establish a work programme under the	New deliverable name: Water Races Long Term Management Options Project. Greater Wellington led. This will be a dedicated project. Work will commence with identifying objectives, preliminary scope and resource requirements, then testing these through a project brief (or business case or similar mechanism) to identify whether there is a mandate to proceed further. The project will need to align with the Wairarapa Water Resilience Programme.
			Wairarapa Water	This deliverable is shared with Recommendation 107.
13	All people of the whaitua need to be involved in efforts to ensure that water is used efficiently and with care, and the burden of change in order to improve water quality should be borne across communities.		authorities and others to establish a work	This is a principle and addressed through other recommendations, rather than having specific deliverables attached to it.

14	Greater Wellington establishes as an urgent priority, and actions, a monitoring plan as required by Policy CB1 of the NPS-FM for the monitoring of each FMU.	To be commissioned by deliverables	No current update	New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Word document for each Whaitua. Each FMU is to be represented. To meet requirements of NFS-FM 2020 s3.18. Note: although each FMU will be addressed, this will not necessarily mean monitoring sites will be implemented. Modelling or extrapolation may be utilised. To action the plan, a revised monitoring programme will need to be put in place. This deliverable is also shared with recommendations 17, 19, 20 and 21.
15	Greater Wellington establishes as an urgent priority, and operates, a freshwater quality accounting system as required by the NPS-FM (Policy CC1). The existing water take accounting system should be upgraded so that it is compatible with the quality system and is accessible to the public and water users.	Currently being implemented	No current update	Greater Wellington's Environment Group have been progressing this but identified issues with data which are being resolved. An ICT component may be progressed separately.
16	Greater Wellington requires the provision of information on contaminant inputs, sources and/or losses and mitigation activities from resource users, as appropriate to the issues, suitable for the development, operation and use of fit for purpose freshwater accounting.	Currently being implemented	No current update	A Freshwater accounting system is being developed by Greater Wellington, as described in Recommendation 15.

17	Greater Wellington develops a suitable monitoring programme(s) to establish in-river sediment loads and/or concentrations, including confirming relationships to sediment loads off land and the effectiveness of mitigations. Greater Wellington requires the progress of actions to mitigate sediment loss, including riparian planting and hill-slope erosion practices, to be regularly reported.	To be commissioned by deliverables		New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.
18	Greater Wellington establishes a data protocol and reporting plan to ensure that all aggregated data collected is publicly available and provided in a fit for purpose and transparent manner.	implemented		Being implemented by Greater Wellington through an accounting system. Data is currently aggregated and publicly available but not in a fit for purpose manner. Remainder of the recommendation with be delivered through the data platform project.
19	Greater Wellington supports community monitoring and the wider integration of monitoring results to support FMU outcomes.	commissioned by deliverables	support landowners and	New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.
20	Greater Wellington undertakes a review of flow monitoring sites in the Ruamāhanga whaitua. Where necessary, to ensure that the network is fit for purpose in implementing this WIP, it makes changes to the network, including the establishment of new sites.	commissioned by deliverables		New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.

21	Greater Wellington establishes a social and economic monitoring and assessment framework with indicators agreed by the community. Greater Wellington includes social and economic monitoring in the monitoring plan for the Ruamāhanga whaitua.	To be commissioned by deliverables		New deliverable name: Whaitua Monitoring Plan encompassing each FMU. Greater Wellington led. Refer to recommendation 14 for details.
25	Greater Wellington plans and implements the Committee's vision for healthy rivers and lakes in the Ruamāhanga whaitua by:  1. Ensuring that the river and lake management functions of the Council achieve freshwater objectives and targets in each FMU  2. Working with mana whenua and communities in co-creating what river and lake management for the health of the river looks like within each FMU.	implemented	members from around the Mangatārere Stream and Waipoua Urban Reach to explore how values relating to river health can be integrated into flood risk management works. Meetings of the Upper Ruamāhanga River Management Advisory Committee and it's associated subcommittees have occurred through July/August.	Te Kāuru Upper Ruamāhanga Floodplain Management Plan sets out a change in river management to improve the health of the rivers in the Upper Ruamāhanga catchment. Such as allowing the river more room, less in river works and planting of the buffer (riparian). Intervention methods have changed since the adoption of Te Kāuru (circa 2019) with many small erosion events being left and watched as they are deemed not to be of any risk to people or infrastructure. The lower catchment will require a wider plan, which is to be developed over the next six years. The Waiohine River Plan has now been adopted by Council. Within this river plan it talks about water quality and outlines the WIP water quality targets for the Waiohine River Plan. The plan outlines recommended plan (PNRP)

				changes to align water allocation as well as planting for river management, biodiversity, and cultural resource.
26	Greater Wellington identifies and implements methods for further enabling mana whenua participation in land and water resource management, including with papa kāinga, marae and hapū (as appropriate), to ensure that the values of mana whenua are appropriately reflected in freshwater planning and regulatory processes and in flood protection strategic and operational planning and implementation.	Currently being implemented	No current update	Greater Wellington's work programmes includes incorporation of Mana Whenua values in the following areas:  • freshwater planning and regulatory processes • flood protection strategic activities • flood protection operational planning • flood protection implementation.
28	, , ,	implemented	integration of delivery work including for lakes and rivers. Greater Wellington is meeting with community	Being implemented by Greater Wellington through several

	3. Progressively implement the findings of this review work. "Activities" could include institutional delivery structures, the alignment of future relevant land and water programmes and investments, and the application of GMP in operational and capital expenditure works.	and Waipoua Urban Reach to explore how values relating to river health can be integrated into flood risk management works.	review will be completed late 2023. Flood Protection also have a Code of Practice that has been updated to reflect WIP recommendations around water quality/healthy rivers and streams.
29		Project has made progress in enhancing natural character, e.g. through planting. The Major Rivers Project is also delivering natural form and character habitats in the Ruamāhanga catchment.	Te Kāuru Upper Ruamāhanga Floodplain Management Plan covers river activities within the Upper Ruamāhanga catchment. It has objectives in the plan that seek to achieve this recommendation. The Code of Practice is also aligned to meet this recommendation. Riparian planting is part of the implementation of Te Kāuru. Funding was achieved through the Ministry for the Environment 'Jobs for Nature' programme that has seen 150,000 native plants planted over 100ha over the last 4

- 4. Investing in riparian planting for shading and stream bank erosion management and in wetland restoration
- 5. Supporting and undertaking the restoration of native fish spawning habitat, including in water bodies affected by flood management activities.

years. This funding was based off Te Kāuru. Te Kāuru funding has now become available to enable us to continue this work in the upper catchment, along with the appointment of Riparian and Community officers. The river schemes also undertaken enhancement work restricted to scheme funding. The lower valley work is via the current scheme structure, where substantial planting is undertaken through each work programme. Over the next six years a river and/or catchment plan will be developed that with mana whenua, TAs and the community that will align with all relevant WIP recommendations. The Waiohine River Plan has now been adopted by Council. Within this river plan it talks about water quality and outlines the WIP water quality targets for the Waiohine River Plan. The plan outlines recommended plan (PNRP) changes to align water allocation as well as planting

for river management, biodiversity and cultural

31	Greater Wellington commits to the restoration of the health of Wairarapa Moana, including Lake Wairarapa and Lake Ōnoke, by undertaking research, investigations and experiments in management approaches, strategic planning and changes to operational activities to progressively improve the lake health and to reach the objectives of this WIP by 2080 at the latest.	implemented	Greater Wellington has established an integrated approach to scoping the review of the Lower Wairarapa Valley Development Scheme.	Wairarapa Moana will form part of the Lower Valley catchment/river plan that will be developed over the next 6 years with mana whenua, TAs and community. The current barrage gate consent will expire in 6 years so that a catchment/river plan is able to be thoroughly investigated (with or without the gates). Some parts of this recommendation are also covered in the following recommendations. Governance arrangements will
				change with the introduction of a Statutory Board.
32	Greater Wellington undertakes feasibility studies of "in- lake" management options for the purposes of providing for the community values of Wairarapa Moana and achieving the freshwater objectives identified in this WIP. Options to investigate include:	Currently being implemented	No current update	This recommendation is being implemented through the Lower Wairarapa Valley Development Scheme Review and Management Plan Project

	<ul> <li>Rerouting the Ruamāhanga River into Lake Wairarapa, particularly at flows below the median flow, with higher flows bypassing the lake</li> <li>Alternative management regimes for the lake level gates at Lake Wairarapa</li> <li>Alternative management regimes for Lake Ōnoke, including in relation to the timing, location and operation of lake mouth openings</li> <li>Experimenting with alternative management options, such as temporarily holding Lake Wairarapa at higher levels than current practice, as a means of testing proof of concepts for potential broader application.</li> <li>All such feasibility studies of in-lake management options should be completed within 10 years of the issuing of this WIP (i.e. by 2028). Experimentation should ensure an appropriate consideration of the WCO. Effective and early engagement with the Ruamāhanga whaitua community and broader public as part of any such feasibility work will help to underpin successful experimentation and the robust identification of management choices for future implementation.</li> </ul>			Plan led by Greater Wellington. Knowledge Water are progressing with the development of a hydraulic model to test the options identified by this recommendation.
33	Greater Wellington investigates further options for restoring the health of Wairarapa Moana, including restoring the Ruamāhanga River flow into Lake Wairarapa, including to:	Currently being implemented	No current update	As per Recommendations 32 & 34 this is being implemented through the Lower Wairarapa Valley Development Scheme Review. Jobs for Nature funding has a research component for fish and water quality.

	Enhance the health of wetlands.			
34	Greater Wellington recognises and supports research being undertaken by external groups, mana whenua and the whaitua community on means to improve the health of Lake Wairarapa and Lake Ōnoke, and actively considers the application of new knowledge to the management of activities affecting the lakes, including through planning, consent practice and operational management practices.	Currently being implemented	Greater Wellington is working to identify the range of studies currently being conducted by external groups.	This recommendation is being implemented through the Lower Wairarapa Valley Development Scheme Review and Management Plan Project Plan.
35	Greater Wellington actively informs and works with external agencies, including the Department of	To be commissioned by deliverables	be conducted in relation to the roles of the Wairarapa Moana Statutory Board, DOC,	New deliverable name: Meeting with DoC re fisheries with identification of any next steps Greater Wellington led. Meeting with DoC representative for Wairarapa fisheries to be initiated by Greater Wellington as part of Wairarapa Moana project discussions. To be followed by written advice (for example a memo or similar) to any local whaitua governance group overseeing implementation of the Ruamāhanga WIP.
42	Across the whaitua, Greater Wellington supports and drives improved management of critical source areas and high-risk land uses in line with GMP, including through working with industry partners.	implemented	No current update	Being implemented by Greater Wellington's Environment Restoration team.
43	In the "top 5" FMUs, Greater Wellington undertakes further sub-FMU scale planning with local communities to establish the locations of highest priority in which to undertake sediment mitigation works in order to achieve the targets in Table 3.	implemented	the "top 5" FMUs identified in the WIP to inform prioritisation,	Across the whaitua, Greater Wellington supports and drives improved management of critical source areas and highrisk land uses in line with good

44	Greater Wellington aligns the planning, funding and support Currently being of sediment mitigation activities, including both riparian implemented restoration and hill-slope erosion and sediment control, with the identified priority areas and targets and the suitable mitigation approaches.	the "top 5" FMUs identified in the WIP to inform prioritisation,	management practice, including through working with industry partners.  Across the whaitua, Greater Wellington supports and drives improved management of critical source areas and highrisk land uses in line with GMP, including through working with industry partners.
45	Greater Wellington promotes the uptake of sediment Currently being mitigation through connections with new research into implemented sediment mitigation measures, practices and adoption mechanisms, and Greater Wellington, industry and community extension services to enable the uptake of constantly improving practice.	No current update	Across the whaitua, Greater Wellington supports and drives improved management of critical source areas and highrisk land uses in line with GMP, including through working with industry partners.
47	Greater Wellington and industry promote and support the Currently being implementation of farm planning as a primary tool of implemented management at a farm scale.	Greater Wellington supports farm planning services as a key tool for good management practise.	Being implemented by Greater Wellington's Environment Restoration team.
48	Greater Wellington further incentivises and promotes the Currently being adoption of farm planning and the activation and review of implemented existing farm plans.	Greater Wellington supports farm planning services as a key tool for good management practise.	Being implemented by Greater Wellington's Environment Restoration team.
49	Greater Wellington and iwi partners and industry work Currently being together to promote and implement GMP in both rural and implemented urban contexts. Appropriate GMP for the Ruamāhanga catchment should be defined.	No current update	Being implemented by Greater Wellington's Environment Restoration team. Good Management Practice (GMP) is a long-standing aspect of farm environment planning. Recent

				developments in this work include updating the GMP competencies of staff with deliberate training, staff development. GMP advisory services are planned in line with catchment priorities as determined by Whaitua water quality objectives and land enhancement grant programmes support landowners implementing farm system changes to enhance GMP at a property scale based on catchment priorities. GMP promotion in urban context is not being implemented, apart from a minor amount of services (less than 5% of total programmes) provided to lifestyle block owners on the fringes of urban areas.
50	GMP should be emphasised as part of farm planning.	Currently being implemented	No current update	Being implemented by Greater Wellington's Environment Restoration team.
52	Greater Wellington actively promotes and enforces the requirements of the permitted activity rules for breakfeeding, cultivation and livestock exclusion.		No current update	Being implemented by Greater Wellington's Environment Restoration team. This work aligns with Recommendation 49, GMP. Riparian restoration programme and various land

				enhancement grant support opportunities are enabling compliance through a farm environment planning delivery model. Enforcement of the requirements, where the above is not successful, is a standard regulation response.
53	Greater Wellington provides a new rule for land use changes where a new land use results in an increase in contaminant load as a discretionary activity in the PNRP. A land use change that results in a decrease in contaminant load shall be a permitted activity.	implemented	No current update	
54	Greater Wellington expands its support for extensive,	Fully implemented	No current update	The implementation of Te Kāuru Upper Ruamāhanga Flood Management Plan is to riparian plant the buffer along the Upper Ruamahanga catchment. This was limited to the Ministry for the Environment Jobs for Nature funding as Te Kāuru did not have funding available. However, this has since changed, and planting can now occur under this funding base. The Waiohine River Plan has now been adopted by Council. Within this river plan it talks about water quality and outlines the WIP water quality targets for the Waiohine River

				Plan. The plan outlines recommended plan (PNRP) changes to align water allocation as well as planting for river management, biodiversity and cultural resource. The vision, targets and requirements of the Whaitua programme and Te Mana O Te Wai are incorporated into the Waiohine River Plan.
61	Greater Wellington, along with iwi and other partners, supports the formation and coordination of catchment communities in both urban and rural environments.	implemented		Being implemented by Greater Wellington's Environment Restoration team.
62	Greater Wellington supports and contributes to the continued development of the Wairarapa Catchment Communities/Pūkaha to Palliser project, which aims to bring catchment community groups together and "make it easier" for them to achieve desired outcomes for their communities, whether they are environmental, social, cultural or economic outcomes.	implemented	Collective, WaiP2K has supported new partners to join the work. Greater Wellington is working with Mountains to Sea Wellington and a new farmer-led organisation to make it easy to coordinate and pursue desired outcomes.	Riparian planting programme is working closely with the community where possible. Te Kāuru now has funding, this will open up a significant ability for GW to work with communities to establish riparian margins throughout the upper catchment. It is early days for the funding, so work needs to commence on developing a programme for this in conjunction with the

63	Greater Wellington supports and contributes to the Currently be development of a multi-agency delivery platform that willimplemente effectively respond and deliver resources effectively and efficiently to the needs of catchment communities. This agency coordinated response will enable communities to make changes ahead of regulation and support innovation.	
64	Greater Wellington writes a compliance plan with the Currently be community for compliance with rules in the PNRP, including implemente targets and limits.	

65	Greater Wellington implements good compliance systems Fue.g. strategic compliance across activities (prioritising importance on higher risk activities).	•		Strategic compliance programme is already operating.
66	Greater Wellington undertakes a prioritisation exercise to To determine the further investigations that need to be co completed in the catchment to better understand effects by and/or to establish causality to inform future management. The priorities identified in the following recommendation should also be included.	ommissioned y deliverables	approach to scoping the review of the Lower Wairarapa Valley Development Scheme, which will include prioritisation of investigations to inform	New deliverable name: Investigation Strategy for the Whaitua. Greater Wellington led. Report with recommendations on priorities for science investigations across the whaitua, including noting priorities already highlighted within the WIP.
67.1	The following investigations should be considered priorities Cuas part of the implementation of Recommendation 66:  • Establish sedimentation rates (and gather other information on the impacts of sediment on lake health and river health) for Lake  Ōnoke, including to establish a relationship between catchment loads and lake health.	nplemented	Greater Wellington has established an integrated approach to scoping the review of the Lower Wairarapa Valley Development Scheme, which will include prioritisation of investigations to inform future management.	
67.2	' '	o be ommissioned y deliverables	Greater Wellington has established an integrated approach to scoping the review of the Lower Wairarapa Valley Development Scheme.	New deliverable name: Contaminant Pathway Investigation. Greater Wellington led. This would need a staged approach. Would need to wait for completion of SkyTEM to begin the groundwater portion, expected to be a couple of

,
years away (see work
underway to implement
recommendation 89).
Stage 1: Desktop and scoping
<ul> <li>Consider what</li> </ul>
national/research
work has been
undertaken in this
area already.
Consider how
work can be used
in FMUs. Scope
investigations to
apply national
programmes for
soil.
Stage 2: Soil attenuation
study
Undertake soil
investigations
Stage 3: Groundwater
Monitoring programme.
<ul> <li>Targeted</li> </ul>
monitoring where
you have a
groundwater issue
(in a groundwater
management
zone).
Stage 4: Catchment Pathways
<ul> <li>Attenuation</li> </ul>
pathways report
outlining results.

				<ul> <li>Could potentially then apply results to other similar catchments.</li> <li>Would need to involve a soil/land scientist.</li> </ul>
67.3	The following investigations should be considered priorities as part of the implementation of Recommendation 66:  • Complete a further investigation, including via modelling, of sediment loads lost from land use activities, including to identify how loads are changing over time.	Currently being Implemented	No current update	
68	Greater Wellington advocates for, and actively seeks out, alternative funding models for mitigation measures in order to promote successful and extensive implementation.		working with partner agencies to coordinate funding and other support. As part of the Wairarapa Collective, Greater Wellington is working with Mountains to Sea Wellington (MfE funded) and a new farmer-led organisation (MPI funded) to make it easy to coordinate and pursue desired outcomes. Jobs4Nature funding has	Greater Wellington Flood Protection actively searched out additional/alternative funding through the first Covid19 lockdown, successfully obtaining a \$5 million, 5 year riparian planting programme through MfE. Also obtained shovel ready funding through the Provisional Development Fund for erosion works, one of which is for River Road, Masterton (\$2 million). This work is to protect the Ruamāhanga River from the closed MDC landfill.

			Project and Major Rivers Project in the Ruamāhanga.	
69	Greater Wellington should actively seek capital from central government and promote external capital investment, such as carbon offsetting programmes, in assisting landowners in extensive uptake of sediment mitigations across the whaitua.			As per Recommendation 68. Flood Protection has obtained central government funding to assist with erosion control (riparian planting and hard engineering). We will continue to apply for capital funding from central government when it is available.
70	To improve water supply reliability, the Ruamāhanga whaitua integrated land and water management systemi should:  • Integrate multiple management options for water retention, including attenuation, storage and harvesting at a range of scales, and efficient use in the long and short terms, rather than be dependent on any one mechanism  • Actively promote attenuation of water in soils, wetlands, lakes and groundwater systems across the catchment  • Ensure an equitable approach to improved water storage and water use efficiency by both rural and urban users.	implemented	Greater Wellington is	Being implemented through Wairarapa Water Resilience
74	Greater Wellington further investigates integrated solutions to water reliability. These should include integrating storage, harvesting, attenuation and managed aquifer recharge, and facilitate pilot projects to prove feasibility.	implemented	Greater Wellington is working with territorial authorities and others to establish a work programme under the Wairarapa Water Resilience Strategy.	Being implemented through Wairarapa Water Resilience Strategy.

86	Greater Wellington undertakes further investigations to ensure that those groundwater takes classified as Category A do have a direct connection with nearby river, stream or lake.	implemented		Investigations have been completed but may be refined in the future using additional information about the geology (e.g., results from Sky TEM project). An assessment of the gaps and confidence in information for each area may be needed.
87.1	Greater Wellington undertakes targeted investigations into the Parkvale Stream, Booths Creek, Mākōura Stream, Kuripuni Stream and Tauanui and Tūranganui Rivers to determine the specific minimum flow requirements and allocation limits for each river or stream, within three years of the plan notification or by 2022.	Currently being implemented	·	Small Stream Investigations work led by Greater Wellington. This work is currently underway.
87.2	Greater Wellington undertakes targeted investigations into the Parkvale Stream, Booths Creek, Mākōura Stream, Kuripuni Stream and Tauanui and Tūranganui Rivers to determine the specific minimum flow requirements and allocation limits for each river or stream, within three years of the plan notification or by 2022.	commissioned by deliverables		New deliverable name: Minimum flow requirements and allocation limits for Mākōura Stream, Kuripuni Stream. Greater Wellington led. Study to match other streams in Recommendation 87. Note that these streams were excluded in existing work (the streams covered in Recommendation 87.1) due to the high cost of implementing this recommendation.
98	In order to help meet minimum flow requirements, the Committee strongly supports the use of rainwater tanks and encourages territorial authorities to require rainwater tanks in new subdivisions to promote the efficient use of water.	Statement	are included in a proposed rule in the	Being managed by Greater Wellington through its regulatory programmes of work.

Greater Wellington works with territorial authorities and To be landowners to collect information and develop long-termcomn management options (in conjunction withby de Recommendations 9 and 11) for all water races in the Ruamāhanga whaitua. The information should be collected and assessed in the order that water races come up for consent renewal.	missioned mapping water races for Races Long Term Management
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Wairarapa Committee 28 May 2024 Report 24.216



#### For Information

### WAIRARAPA WATER RESILIENCE STRATEGY UPDATE

## Te take mō te pūrongo Purpose

1. This report provides an update on work progressed by an interim governance group to develop a work programme under the Wairarapa Water Resilience Strategy, and on Greater Wellington's contribution to that work.

## Te tāhū kōrero Background

- 2. Improving water resilience in the Wairarapa has been identified as a priority across strategic and planning documents to ensure economic, social and environmental sustainability and improvement for the region.
- 3. Increasing demand coupled with expected climatic changes leading to more droughts and degradation of water resources provides particular challenges for the Wairarapa region.
- 4. The Wairarapa Water Resilience Strategy (the Strategy) was developed as part of a collaborative process in 2021. It sets out an integrated approach covering the management of demand and enhancing the supply of water resources. This is in light of predictions that demand for water will grow, while climate change is driving extended periods of drought interspersed with severe weather events.
- 5. Its outcome statement is: "Secure, efficient and resilient supplies of freshwater for all people of Wairarapa, in a way acceptable to tangata whenua and within acceptable environmental standards."
- 6. The Strategy has since been endorsed by leadership across the region and identified as a key priority under both the Wairarapa and Wellington Region Economic Development Plans.
- 7. The Regional Economic Plan and Wairarapa Economic Development Strategy and Action Plan also identify water resilience as a priority with the need for an integrated approach to preparing for water use and protection.
- 8. The strategy also has extensive crossover with recommendations in the Ruamāhanga Whaitua Implementation Programme (WIP) and identifies the WIP as a key companion document (see report 24.215).

## Te tātaritanga Analysis

- 9. Given the overlapping areas of influence and mandate, successful implementation of the Strategy relies on an appropriate form of governance and oversight of work. A previous proposal to conduct the Strategy under the oversight of the Wairarapa Committee was not favoured. Identifying the right form of governance has therefore been a key focus.
- 10. In November 2023 elected members from Wairarapa councils and Greater Wellington met and agreed to provide interim governance and oversight for the development and ratification of a work programme to implement the Strategy.
- 11. As the council organisations are collectively responsible for ensuring the well-being of our environment and communities, for whom water is a critical resource, it is understood that collaboration lies at the heart of the success of the strategy. By bringing together the four councils and mana whenua, collective strength, expertise, and resources can be harnessed to make a meaningful impact on water resilience in Wairarapa.

### Role of Greater Wellington

- 12. Greater Wellington has funded the work to establish interim governance and to make progress on an agreed work programme over the last six months. However, the strategy is clear that collective responsibility and action is critical to success.
- 13. Greater Wellington's newly established catchment team will be responsible for the integration of Greater Wellington's resilience work with other work such as WIP implementation and flood protection works. This integration is a work in progress that will improve over time.
- 14. Our current focus is on connections between the strategy and the WIP, for example where actions and activities can support multiple outcomes. We are also responsible for the SkyTEM partnership with GNS. SkyTEM is an ongoing key investment for Greater Wellington that is directly delivering on strategy direction.

### Proposed structure of governance

- 15. Since its formation, the Interim Governance Group has established Terms of Reference, communication protocols and the structure for a work programme. This aims to ensure governance and management that allows progress to be made while maintaining information flows and connections to organisations and decision-makers.
- 16. The structure proposed is summarised in the following figures, where Figure 1 shows the programme and project structure at a high level and Figure 2 shows the proposed governance structure in simplified form:

Figure 1. Proposed summary of the work programme structure

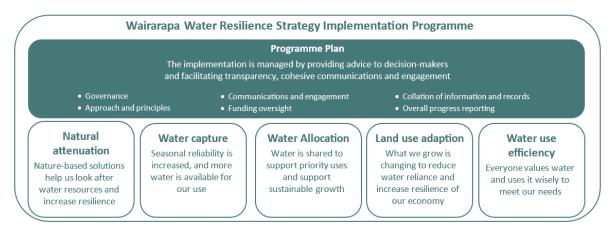
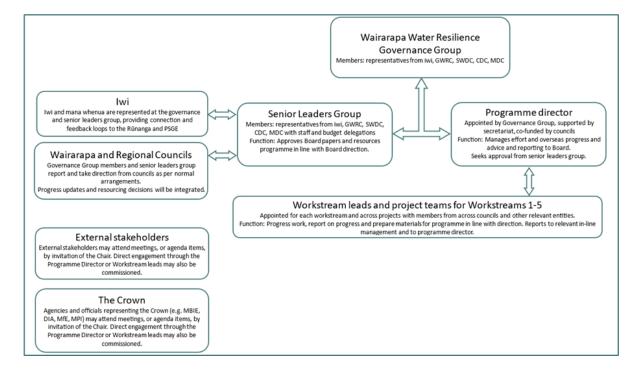


Figure 2. Proposed governance structure for the implementation of the work programme



### Work programme decision-making

- 17. At the next meeting of the interim governance group (scheduled on 29 May 2024) members will work through identifying pragmatic, implementable projects that can demonstrate progress.
- 18. The group is looking for quick wins that can demonstrate partners working together to implement action on the ground around water resilience outcomes. It is anticipated that some initiatives may also require longer-term statutory decision-making that will be brought to councils for deliberation.

19. Councils are also currently working to secure the commitment of funding for the programme management and operational funding in line with the Shared Services Policy.

## Water capture

- 20. The possibilities for water capture generate a lot of interest in the Wairarapa. Greater Wellington and other partners have been involved in work related to the feasibility, regulation and funding of water capture over many years.
- 21. A group of private individuals called the Wairarapa Water Users Group, not formally connected to the Strategy, has been working with IrrigationNZ and other stakeholders to reinvigorate plans for a large storage facility. This includes exploration of options under proposed mechanisms in the Fast-track Approvals Bill currently being considered by Parliament.
- 22. Water capture is a key element of the Strategy and is identified as a necessary component. However, the strategy does not specify any particular water capture solution and the interim governance group has not specified any particular water capture solutions or storage facilities.
- 23. It is anticipated that any council positions regarding specific water capture or storage facility solutions would be shared and coordinated through the Wairarapa Water Resilience work programme.

## Ngā hua ahumoni Financial implications

- 24. Implementing the Wairarapa Water Resilience Strategy will take concerted effort across the council and iwi over an extended period of time. This will have implication for the direction of existing work and require prioritisation of resources. The main immediate investment will be through officer time and funding for programme management.
- 25. It has been agreed between the councils that a total of \$150k is raised to engage an independent coordinator to deliver the function of Programme Director reporting directly to the Governance Group and ensuring connections back to partner organisations.
- 26. The funding split was agreed in line with the Shared Service Policy that provides for funding splits for scoping potential shared services/collaborations and joint external service contracts between the four councils. The proportions, and subsequent investment, being:
  - GWRC 30% \$45,000
  - MDC 36.4% \$54,600
  - CDC 14% \$21,000
  - SWDC 19.6% \$29,400
- 27. Additional funding will need to be sought for the agreed priority programmes where they are not already funded by councils. Much of the work of implementation may be co-funded with other parties with a stake in individual initiatives.

## Ngā Take e hāngai ana te iwi Māori Implications for Māori

- 28. The strategy identifies the importance of Māori rights and interests in the outcomes of freshwater management and makes clear that mana whenua involvement is required at every level of this work.
- 29. Invitations have been extended for Rangitāne and Kahungunu PSGE entities to nominate representatives to the interim governance group. This has prompted discussion regarding the role of iwi rūnanga in the governance of the strategy. Greater Wellington's existing relationships with rūnanga mean that we have been sharing updates and information about this work with both Kahungunu and Rangitāne rūnanga partners.
- 30. The most recent interim governance meeting had representation from Rangitane Tu Mai Ra Trust (PSGE) and kaimahi from Rangitane runanga attended as observers.

## Te huritao ki te huringa o te āhuarangi Consideration of climate change

- 31. The main sectors that contribute to the Wairarapa economy and major employers like hospitality, primary industries, food and fibre and manufacturing are all heavily reliant on access to a good, secure water supply.
- 32. The collective impacts of climate change and tighter rules and regulations for water management will, and already are, impacting on the existence of established business, inhibiting new businesses and constraining population growth in Wairarapa.
- 33. This is in light of predictions that demand for water will grow, while climate change is driving extended periods of drought interspersed with severe weather events.
- 34. The Wairarapa Water Resilience Strategy takes a holistic approach which includes consideration of any climate change-related risks and actively seeks to soften impacts through supporting adaptation and ensure water can be held in the environment for longer to help ameliorate impacts of drought and flooding.

## Ngā kaiwaitohu Signatories

Writers	Jennie Marks – Water resilience contractor, Greater Wellington				
	Pete Huggins – Catchment Manager - Ruamāhanga				
Approvers	Nicola Patrick – Director, Catchment				
	Lian Butcher – Group Manager, Environment				

## He whakarāpopoto i ngā huritaonga Summary of considerations

## Fit with Council's roles or with Committee's terms of reference

Improving water resilience in the Wairarapa has been identified as a priority across strategic and planning documents to ensure economic, social and environmental sustainability and improvement for the region.

## Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

Implementing the Wairarapa Water Resilience Strategy will take concerted effort across the council and iwi over an extended period of time. This will have implication for the direction of existing work and require prioritisation of resources. The main immediate investment will be through officer time and funding for programme management.

### Internal consultation

This report was prepared by the Catchment Team.

## Risks and impacts - legal / health and safety etc.

There are no known specific risks and impacts related to this report.

Wairarapa Committee 28 May 2024 Report 24.224



#### For Information

# RELEASE OF WAIRARAPA SW CARRIAGE ROUGH RIDE AND VIBRATION REVIEW

## Te take mō te pūrongo Purpose

1. To advise the Wairarapa Committee (the Committee) on the recently released Wairarapa SW Carriage Rough Ride and Vibration Review.

## Te tāhū kōrero Background

- 2. There has been significant investment in the Wellington Metro Network since July 2020; with increased programmes funding allocated from NZ Transport Agency (NZTA) to complete catch up renewals and upgrade tracks, bridges, tunnels, and signalling.
- 3. Work started on the Wellington Metro Network in 2021, including upgrading the track north of Remutaka Tunnel. The investment in the Wairarapa Line in particular has focused on catch up renewals, after years of deferred renewals caused by historical funding limitations.
- 4. Rough rides and vibrations in SW carriages (SW-type), on certain sections of track, were first reported north of Remutaka Tunnel in November 2022. However, these vibrations were linked to degraded wooden sleepers.
- 5. In July 2023, it was reported that Wairarapa Line trains were experiencing vibration issues at 80km/hr, just north of Taita, and just north of Matarawa (near Carterton).
- 6. In late July 2023, KiwiRail suggested Temporary Speed Restrictions (TSRs) in the worst locations as vibrations were significantly less at lower speeds.
- 7. KiwiRail also sent additional engineers out to inspect via on board monitoring and found SW-type carriages were having increased vibrations at four locations.
- 8. Data loggers measuring the vibrations and rough rides were then installed and measurements taken on a SW-type test train, which confirmed that vibration was occurring.
- 9. KiwiRail also completed a track trial to test the SW-type carriage sensitivity to changes in track gauge. This trial confirmed that when the track gauge was widened, increasing the rail wheel interface gap, vibrations were reduced at speeds up to 80km/hour.

### Wairarapa SW Carriage Rough Ride and Vibration Review.

 In early March 2024, KiwiRail and Greater Wellington engaged Beca to undertake a review of the Wairarapa Line vibration issues. Greater Wellington staff contributed to the terms of reference of the review.

## Te tātaritanga

## 11. Analysis

- 12. In May 2024 a final copy of the Beca Wairarapa SW Carriage Rough Ride and Vibration Review (Review) was received.
- 13. A copy of this Review is attached as **Attachment 1** to this report.

## Summary findings of the Review

- 14. The scope of work and design for the Wairarapa line is compliant to KiwiRail Track Standards and tolerances. The work completed was identified from the existing KiwiRail maintenance work bank, which then went through internal KiwiRail reviews and approvals.
- 15. No wider consultation (regarding interoperability) occurred as all planned work was within existing KiwiRail standards and tolerances, hence no change or contract requirement to engage.
- 16. Works have been delivered predominantly by local KiwiRail teams utilising existing standards and task instructions.
- 17. Rail grinding post rerailing, as defined in the rail management standard, is an activity that is programmed and should take place after new track is installed.
- **18.** Grinding alone will also not significantly reduce the likelihood of vibrations of SW-type carriages. Grinding will, however, help by creating a smoother wheel-rail interface, improving contact rail wheel, and reducing frictional forces that may contribute to the lateral instability of trains.
- **19.** Re-profiling the wheels to a different profile, in addition to grinding the tracks will help reduce the likelihood of vibrations of SW-type carriages.

### **Programme of Works**

Reducing service restrictions

20. In order to reduce service restrictions impacting SW-type carriages on the Wairarapa Line, the following Programme of Works has been developed:

Activity	When*	Comment/s
Commence WRL rail track grinding	25 May 2024	Grinding is scheduled to take approximately 6 weeks.
		Testing to following grinding.

Activity	When*	Comment/s
Commence re-profiling of wheels	Mid-July 2024	Re-profiling of affected carriages is expected to take 3 months
		For testing purposes some carriages have already been re-profiled.
		Re-profiling will be progressed in stages, with testing undertaken to determine whether achieves outcome.
Remove Temporary Speed Restrictions (TSRs) related to vibration issues	October 2024	TSRs will be removed following the successful implementation of programmed work

<sup>\*</sup>Note that timings are subject to change and will be accelerated if possible.

### Wider Network review

21. Following the identification of issues with SW carriages on the Wairarapa Line, a wider network testing regime will take place to determine whether the vibrations are limited to the SW carriages.

### Interoperability review

- 22. Further work will be undertaken (led by KiwiRail) to identify possible changes in KiwiRail standards and/or other interoperability documents.
- 23. All changes identified will need to be tested and updated in relevant documents in close consultation with all relevant parties (including Greater Wellington).

## Te whakatūtakitaki Engagement

24. Greater Wellington and KiwiRail have developed a stakeholder engagement and communications plan for this work.

## Ngā tūāoma e whai ake nei Next steps

- 25. Officers will continue to work closely and collaboratively with KiwiRail and Transdev on matters as set out above.
- 26. The Committee will be provided with updates on matters contained in this report as required.

## Ngā āpitihanga Attachment

Number	Title
1	Wairarapa SW Carriage Rough Ride and Vibration Review

# Ngā kaiwaitohu Signatories

Writer	David Mawson – Manager Rail Network Delivery, Assets & Infrastructure
Approvers	Fiona Abbott – Senior Manager, Assets & Infrastructure
	Samantha Gain – Kaiwhakahaere Matua Waka-ā-atea   Group Manager Metlink

## He whakarāpopoto i ngā huritaonga Summary of considerations

## Fit with Council's roles or with Committee's terms of reference.

The Committee has responsibility to "consider regional, national ... emerging issues and impacts ...".

## Contribution to Annual Plan / Long Term Plan / Other key strategies and policies

The provision of public transport is a key activity in the Long-Term Plan.

### Internal consultation

No internal consultation was necessary.

## Risks and impacts - legal / health and safety etc.

There is some risk associated with the Report findings. Council/the Committee will be kept informed of any mitigations that are required.



# Wairarapa SW Carriage Rough Ride and Vibration Review

Planning, Delivery and Tolerances

Prepared for KiwiRail and Greater Wellington Regional Council Prepared by Beca Limited Commercial in Confidence

1 May 2024



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## **Revision History**

Revision No	Prepared By	Description	Date
1.0	Andrew Livermore	First Draft	02.04.24
2.0	Jonathan Sanders Lachlan Daniel	Interval Review - Draft	03.04.24
3.0	KiwiRail Greater Wellington Regional Council	Client Review – Draft	04.04.24
4.2	Andrew Livermore	Final	01.05.24

## **Document Acceptance**

Action	Name	Signed	Date
Prepared by	Andrew Livermore	13 lune	02.04.24
Reviewed by	Jonathan Sanders Lachlan Daniel	AH o'Samf.	03.04.24
Draft Approved by	Andrew Livermore	13 lune	03.04.24
Final Approved by	Andrew Livermore	As lume	01.05.24
on behalf of	Beca Limited		

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# **Executive Summary**

There has been significant investment in both the Auckland and Wellington Metro Networks since July 2020 with increased funding allocated to complete catch up renewals and upgrade tracks, bridges, tunnels, and signalling. Work started on the Wellington Metro Network in 2021, including upgrading the track north of Remutaka Tunnel. The investment in the Wairarapa Line in particular has focused on catch up renewals, after years of deferred renewals caused by historical funding limitations.

Rough rides and vibrations in South Wairarapa (SW) type carriages (SW-type), on certain sections of track, were first reported north of Remutaka Tunnel in November 2022, which following track and train inspections confirmed oscillatory or side to side movements (i.e. "hunting"). Seven speed restrictions are currently in place, as reductions in train speed reduce the severity of the vibrations in carriages. Locomotive Engineers have not reported hunting, nor has the EM80 Track Inspection Vehicle¹ (EM80) correlated track faults to hunting. Data loggers have been installed in some SW-type carriages to confirm hunting locations, and a trial of changing track insulations to amend the gauge has also been completed.

Railways are a system that are made up of multiple variables, hence to identify possible causes and solutions to reduce hunting in SW-type carriages, both above and below track aspects have been reviewed. As hunting propensity in carriages is increased by multiple factors, including:

- carriage design, including loading;
- the rail wheel interface gap (i.e. track gauge, rail head profile, wheel flange width, wheel condition including profile, and wheelset back-to-back measurements);
- carriage suspension characteristics (i.e. more modern bogies have improved capability to dampen out forces); and
- speed (i.e. it is more prevalent as trains accelerate and increase speed on tangent track).

KiwiRail engineering specifications confirm tolerances are 1068mm track gauge, including -4mm/1064mm or +2mm/1070mm on newly installed concrete sleepers. Track gauge is measured dynamically (i.e. underload) at a regularly frequency by the EM80, so faults can be identified and rectified, which confirms track gauge is predominantly 1066mm to 1070mm.

The condition of carriage wheelsets is defined by three profiles; C1 – new, C2 – alternative, and C3 – last turning profile (before wheels are condemned). The wheel flange width reduces by 2mm each time a wheel is reprofiled, which aids to maintain maximum life and ride quality. Currently, 17 of the 18 carriages have wheels at a C1 profile, with one at C2.

The back-to-back distance between wheels varies between the SW-type with 14 of the 18 carriages having 997 (+1 to -0mm) and four having 995mm (+1 to -1mm). An internal KiwiRail engineering change request was issued in September 2016, after Greater Wellington Regional Council (GWRC) took over responsibility of SW-carriages in July 2016, reducing the back-to-back distance between wheels to 995mm. Implications of this change to GWRC, Transdev and Hyundai Rotem needs further review and clarification, as some wheelsets pressed by KiwiRail have been

<sup>&</sup>lt;sup>1</sup> The EM80 Track Inspection Vehicle is the network calibrated advanced monitoring vehicle designed to check the condition of the rails, detect any irregularities or faults (including gauge), and validate that the tracks remain within defined engineering tolerances.



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updated to 995mm, whereas National Rail System Standard/6 – Engineering Interoperability Standards (2013) states 997mm.

Carriages and bogie suspension is inspected at regular intervals by distance and time intervals. Bogie rebuilds are planned in every 400,000kms, and currently 5 of the carriages are planned in for next year. Although specific records were not checked, it was commented that no change in inspections or maintenance has occur, except that wear liners replacement has increased from 2023, and brake blocks are also cracking and needing earlier replacement.

Based on the information provided and reviewed, the track and carriage factors causing increasing hunting propensity in SW-type carriages on the Wairarapa Line are:

- Track geometry, where track is straight and carriage speed exceeds 60km/hour, as hunting
  is less prevalent on curves and vibrations are reduced at speeds less than 60km/hour
  (i.e. hunting is likely to be still occurring, but the vibrations reduce).
- Track gauge, which also impacts the gap between the rail head and wheels. A gauge of less
  than 1068mm reduces the rail wheel interface gap and changes the contact points of the
  wheels on the rails, which then at higher speeds increases the likelihood for them to hunt for
  the optimal rail wheel contact point (i.e. increasing the likelihood for vibrations).
- SW-type carriage suspension has no lateral damping, as found in the SE and Martangi carriages, with increased sensitivity to changes in the rail wheel interface (i.e. it cannot dampen out certain vibrations past a certain speed, which are transferred into the carriage). During the interviews held, there were anecdotal reports of vibrations in SE-type and Martangi carriages, but this is yet to be formally verified by data loggers. Additionally, similar works in Auckland Metro has not seen any increased reporting of hunting or vibrations, which suggests SW-type carriages have increased sensitivity to rail wheel interface changes.
- Wheelset condition, the back-to-back distance, and wheel flange width also determine the
  rail wheel interface gap and the optimal contact point. A wider back-to-back and wider wheel
  flange narrow the gap and changes the contact points of the wheels on the rails, which then
  at higher speeds increases the likelihood for them to hunt for the optimal interface (i.e.
  causing vibrations as the wheels hunt the rail head and strike the rail face).

Based on the interviews held, and information provided and reviewed, the root causes of hunting occurring with SW-type carriages on the Wairarapa Line are:

- The history of deferred renewals on the Wairarapa Line due to historical funding limitations, following major renewals of sleepers in the 1960s and 1980s. Sleeper renewals between the 1960's and 1980's replaced the traditional hardwood sleepers to Treated Pinus Radiata (TPR). The 2017 Wellington Metro Upgrade Business Case identifies ~30km of these TPR sleepers were at end of life needing replacement and ~5km of rail close to wear limits. Had progressive renewals been occurring at regular intervals, the quantum of work needing to be completed from 2020 would have been significantly less.
- TPR sleepers have not been widely installed since the mid 1980's, when pre-stressed
  concrete sleepers became supplanted. The use of concrete sleepers is now current practice
  throughout the KiwiRail network due to their structural performance, lifespan, ease of
  inspection and replacement. However, due to historical deferred renewals, coupled with an
  update in sleeper type, there has been a significant improvement in track gauge variability



around the nominal 1068mm. The renewals work completed to date has now achieved a 32% improvement on nominal gauge variability (1066mm-1070mm), with EM80 track gauge data revealing:

- 2023 track gauge data, 89% between 1066mm and 1070mm, with 96% between 1064mm and 1070mm (expected engineering tolerance for concrete sleepers)
- 2020 track gauge data, 57% between 1066mm and 1070mm, with 96% between 1062mm and 1076mm.
- Due to the improvement in nominal gauge reducing overall variability, previously unknown hunting sensitivity in SW-type carriages has begun to appear on tangent track at speeds greater than 60km/hr. Hunting in SW-type carriages or other trains caused by track renewals was never known or documented prior to the renewals work being planned. As such, no consultation was undertaken between any of the parties when scoping the renewals, as there was no previous risk that the work might cause train interoperability issues. Existing KiwiRail specifications have also subsequently been used to select the materials, so no change management or stakeholder consultation was needed, as nothing had changed or might be deemed different to cause any interoperability issues.
- Hence, hunting in SW-type carriages is now occurring in some sections of renewed tangent track, where track gauge is compliant (within tolerance) but less than 1066mm, travelling in excess of 60km/hr, due to unknown possible limitations within the SW-type lateral dampening capability. In comparison, trains in the Auckland Metro network at greater speeds, on the same type of replaced track have not had any reports of hunting, increased maintenance on carriages, nor track components (i.e. insulators) failing at faster intervals.

Broader recommendations are provided at the back of this report, which identify a range of actions. However, to remove hunting a range of progressive targeted works will be needed. The works will need to be coordinated and continually tested with data loggers to confirm hunting is reducing. Testing with data loggers is important, as they provide independent verified data on the actual forces being transferred into carriages, and therefore provide confidence that changes are reducing hunting as trains start increasing speed. Possible works identified include:

- Rail Head Grinding Grinding alone will not remove hunting, although it may reduce its severity in the short term. Grinding will however enable an optimum rail wheel interface and reduce the likelihood of other longer-term track and wheelset defects (e.g. rolling contact fatigue, guttering, etc).
- Wheel reprofiling Changing C1 wheel profiles on SW-type carriages to a C2 wheel profile reduces wheel flange width, improving the rail wheel interface gap by ~4mm.
- Back-to-back distance Depending on the improvements gained by grinding and wheel reprofiling, adopting the 995mm (+/- 1m) back-to-back should also reduce the likelihood of hunting. As reducing the distance between the wheel flanges also improves the rail wheel interface gap by a further ~2mm.
- If the above works do not reduce hunting in all SW-type carriages, then confirmed isolated track locations where hunting remains will need to be individually investigated. Site specific changes, such as changing insulator configurations (i.e. reclipping), will then need to be



further tested. However, widespread changes to increase the gauge beyond 1068mm should only be a last option, as this changes the contact points between the wheels and rail which has potential to create longer-term maintenance issues in both wheels and track.

## 1 Introduction

## 1.1 Chronological summary of key documents and events

Relevant information was reviewed before interviews, and requested during interviews, which is summarised in Appendix A, with more detailed relevant information provided in Appendix B. The following section chronologically summarises key time periods relevant to identifying root causes and the identification of hunting in SW-type carriages.

### Pre 2017

In 2000 a Technical Report was written by Rail Services Australia on the Rail Wheel Interface Improvement for Tranz Rail. Tranz Rail were exploring what changes they could make above rails to extend the potential life of both wheels and rails, to reduce the longer-term costs of replacing rails and machining of the wheels to restore profiles. As one of the main reasons for the very severe wear in rails and wheels is the high proportion of sharp curves present in the National Rail System. The report focused on the rail wheel interface and provided recommendations to achieve improvements, in particular:

- reduced rail wear;
- reduced wheel wear;
- reduced development of defects;
- reduced cost of rail and wheel maintenance;
- reduced energy associated with wheel-rail interaction;
- improved network capacity; and
- any additional parameters.

The report provides reference to research that identifies the benefits that can be gained by designing suitable wheel and rail profiles, including:

- Improved steering characteristics of wheelsets in curves, and hence reduced flanging forces and wear, together with a reduced risk of wheel climb.
- Improved wheel/rail contact stress and creepage conditions, and hence reduced incidence and severity of contact fatigue defects.
- Improved dynamic characteristics of wheelsets, and hence reduced levels of vehicle hunting particularly in tangent track and shallow curves.
- Improved loading characteristics on the rails, and hence reduced section stresses providing an opportunity for increased rail head wear limits.

The report then confirms that with a 997mm back-to-back on 1068mm gauge:

 Modified wheel and rail profiles will satisfy the main wheel-rail contact requirements, including a definite two-point and relatively broad contact near the centre of the running



surface of the tangent rails, which reduce the sensitivity to vehicle hunting and adverse vehicle/track dynamics;

• The marked benefits associated with operating with either worn or modified wheel profiles, which lead to a reduction in the flange energy of about 90%.

The report then makes multiple recommendations, which KiwiRail state are still valid today, and have formed the basis for the current rail grinding profile, current work looking at rolling contact fatigue, and some wheel profile changes. This report also formed the basis of moving to a reduced back-to-back of 995mm in 2016. 995mm was arrived at as a lower limit due design of turnouts and certain track features, not the 5mm reduction (992mm) that was identified in the report.

This report also identifies and recommends that if hunting on tangent track at higher speeds becomes evident then the following three options should be considered;

- Reduce the wheelset back-to-back distance by 4-5 mm (995mm adopted in 2016); and/or
- Reduce the wheel flange thickness by up to 2 mm (i.e. C2 wheel profile); and/or
- Apply the tangent rail profile by rail grinding (currently planned in).

In 2013, National Rail System Standard 6 - Engineering Interoperability Standards - Issue 4 (NRSS /6) was updated. NRSS/6 outlines the minimum requirements for rail vehicle interoperability on the National Rail System. It includes an unchanged back-to-back at 997-988mm and flange widths unchanged, provided in wheel profile drawings provided in Appendix A (i.e. C1. C2, and C3).

Then in July 2016 Transdev Wellington took over the operation of commuter train services in the Greater Wellington region, including the Wairarapa Line from KiwiRail's subsidiary Tranz Metro. The change was part of a wider transition involving the management of the region's rail services. Since then, Transdev Wellington, under the brand name Metlink, has been responsible for running Wairarapa Line services.

In September 2016, an internal KiwiRail Engineering Change Request was issued, instructing the change in back-to-back to 995mm (+/- 1mm). The driver for this change was the analysis and recommendations from the Rail Services Australia Report from 2000, which identified benefits to the National Rail System by moving to a reduced back-to-back.

### 2017 - 2021

In November 2017 a jointly sponsored Single Stage Business Case by KiwiRail, as the network asset owner, and Greater Wellington Regional Council, as the predominant network asset funder and user, was prepared. It was written to obtain Crown funding for track and civil engineering infrastructure catch-up renewals throughout the Wellington Metro Railway Network.

The primary focus of the Business Case was the Wairarapa Line seeking investment to renew track assets which were approaching the end of their useful lives. A peak of future renewals work exceeding the capacity of the current funding models to address had been identified, which without additional funding, would cause significant impacts on service levels. At that time, the line already had significant speed restrictions in place due to deteriorating asset condition which were forecast to increase in quantity and severity without additional funding. Funding was therefore targeted at removing and preventing any additional speed restrictions, no benefits of increasing Wairarapa line speeds to 100km/hr were assessed.



The Business Case states that overall condition of the Wairarapa line is poor and deteriorating (see Figure 1). It is the worst condition route on the Wellington network. "There are significant numbers of decayed sleepers, with poor fastenings, and over 5km of rail at or close to wear limits. Need for renewal primarily reflects the track and formation time in service. The line has had little major renewal activity since it was face-renewed with Treated Pinus Radiata (TPR) sleepers over a relatively short period between the 1960's and early 1980's. Deferred maintenance caused by funding limitations has further contributed to build a bow wave of renewals work. This concentration of similar aged assets falling due over a limited period is behind the scale of renewal required".

Overall, the Business Case identifies the main deficiencies as:

- Approximately 30km of end-of-life TPR sleepers;
- Poor ballast and formation throughout, in places exacerbated by poor drainage;
- End of life and poor condition track in Tunnel 1 and (major) Tunnel 2;
- · Bridges with end-of-life timber elements; and
- 1 high risk slope.



**Figure 1.** From Single Stage Business Case, "deteriorated Treated Pinus Radiata (TPR) sleepers. These are endemic on the Wairarapa Line, with the sleepers replaced during significant volumes of renewals nearly 40 years ago now having run through their life cycle"

The Business Case also provides a summary of the TPR sleeper legacy issues and changes to concrete. TPR sleepers have not been installed on the network since the mid 1980's, when prestressed concrete sleepers became supplanted. The use of pre-stressed concrete sleepers is now current practice throughout the KiwiRail network and other railways around the world due to their superior structural performance, lifespan, ease of inspection and replacement.



Risks to train and carriage interoperability was not covered nor mentioned. As the risk of hunting in SW-type carriages or other trains caused by track renewals was not known or had been previously identified prior to the quantum or type of renewal work being specified for the Wairarapa Line. No consultation was therefore undertaken between any of the parties, or engineering change management, as there were no risks in the scope of work that might impact train interoperability.

#### 2022 - 2024

KiwiRail commences catch up renewals of the Wairarapa Line, which will be finished in 2028. GWRC's new hybrid trains are expected in 2029 which allows them to utilise the existing overhead power and then run on the non-electrified sections. Supported by KiwiRail's renewal works, they will allow for more peak and off-peak services.

To date ~38km of the 50km of track has been completed north of Remutaka Tunnel including rerailing and re-sleepering from life expired timber to concrete in many sections.

### Completed works to date include:

- Renewed 58.8km of track to Masterton, including the 572m Maoribank Tunnel.
- Replaced the drainage in the Maoribank and Remutaka Tunnels.
- Replaced three aging bridges.

### Remaining works:

Replace the track in the 8.8km Remutaka Tunnel, so trains can go through it faster than 60 km/h. This work is scheduled for the Christmas 2024 network shutdown.

Reports of hunting first began in November 2022, KiwiRail received an emergency call that travelling in SW-type carriages "the train shakes from side to side" between 77km – 78.2km (Carterton – Clareville Waingawa) on the Wairarapa Line (WRL). The track was inspected by KiwiRail, and the geometry was found to be within engineering tolerances (i.e. Table 3 of T200 Track Handbook). The last EM80 report was also checked, which had no track geometry tolerance exceedances in the area. Hyundai Rotem (SW-type carriage maintainer) was also notified who inspected the carriages and subsequently found antiroll bars needed replacing.

In February 2023 KiwiRail received information that Hyundai Rotem was still reporting the vibration issue was occurring. Hyundai Rotem had inspected the carriages and found no issues with the antiroll bars, so requested the track north of Carterton be checked. KiwiRail confirmed the track had been re-laid in this area, but had been tamped, inspected, and was ok for linespeed (based on the track measurements and tolerances).

In July 2023 Hyundai Rotem again reported that they were having the vibration issues at 80km/hr, just north of Taita, and just north of Matarawa. They had upped inspections on carriages and maintenance but with very little improvements, so requested the track be checked. KiwiRail completed track inspections via trains, and confirmed the vibration sounds like the "bogie slapping on the underneath of the carriage" and referred it back to Hyundai Rotem, as the track geometry had no engineering tolerance exceedances, and the vibration issues were initially thought to be isolated to some SW-type carriages.

In late July 2023, multiple reports were raised increasing locations of rough rides by train crews. KiwiRail suggested Temporary Speed Restrictions (TSRs) in the worst locations as vibrations were significantly less at lower speeds. KiwiRail also sent additional engineers out to inspect via on board monitoring and found SW-type carriages were having increased vibrations at four locations.



As of 24<sup>th</sup> March 2024, there are 21 TSRs on the Wairarapa Line, seven are vibration, with six north of Featherston, and one Taita, with five at 60km/hour, one at 40km/hour, and one 25km/hour.

Data loggers measuring the vibrations and rough rides were then installed and measurements taken on a SW-type test train, which confirmed that hunting was occurring. Varying locations were identified within the carriages for data loggers to be installed, which also confirmed increased forces measured directly above the bogies versus loggers located in the centre of the carriage.

KiwiRail also completed a track trial to test the SW-type carriage sensitivity to changes in track gauge. They changed insulators (i.e. reclipping) between 68.3km - 68.8km which widened the track gauge to 1071mm (versus 1066mm either side of the trial). This trial confirmed that when the track gauge was widened, increasing the rail wheel interface gap, hunting was reduced at speeds up to 80km/hour.

## 1.2 Hunting

Hunting is a term used to describe the dynamic instability that can occur when a train is in motion. It describes an oscillatory or side-to-side movement of the wheelsets or bogies that can become increasingly pronounced at higher speeds. This lateral motion can cause the wheel flanges to repeatedly strike the rails, causing vibrations and leading to uneven wear on the wheels and rails, which over time can cause track and carriage defects. There are typically multiple factors that contribute to hunting, which include:

- carriage design and carriage suspension characteristics;
- the rail wheel interface gap (which involves the back-to-back measurements of wheelsets, the flange width of wheels, and track gauge); and
- speed on tangent track.

The repetitive lateral forces exerted by hunting over the longer-term impacts both the track and the carriages, including

- Increased fuel consumption;
- Increased and abnormal wear of the rail head;
- Increased track maintenance due to increased forces exerted on rail components (i.e. pads, insulators, and clips) and the supporting ballast;
- Faster wear on rollingstock wheelsets and bogies, causing increased faults and preventative maintenance; and
- Derailment risk also increases if speeds are not reduced, as a result of increased possibility of wheel climb.

### 1.3 Scope of the review

Railways are a system that are made up of multiple variables, hence to identify the causes and possible solutions to reduce hunting propensity in carriages, both above and below track aspects were investigated. The KiwiRail, below track scope included:

 Confirm the process that was undertaken to rerail the line, including timeline, planning decisions, approvals, and quality assurance/quality control mechanisms (e.g. design, specifications, pick up, installation, and code of compliance);



- Confirm roles and responsibilities, including which teams decided what, and who inspected/authorised/approved key decisions;
- Identify causal factors, and possible recommendations to prevent reoccurrence; and
- Produce a final report summarising the causal factors and recommendations.

The Greater Wellington Regional Council (GWRC), above track scope included:

- Confirm SW-type wheelset tolerances and current measurements;
- Confirm SW-type bogie maintenance intervals and current condition assessments (maintenance history);
- Identify relevant documents, including their revision history re changes/updates to measurements, tolerances or maintenance interventions;
- Identify likely root causes that are contributing to vibration and rough ride issues;
- Provide a table of possible solutions; and
- Reviews needed or changes to existing tolerances, standards, or maintenance practices.

Specific questions to be answered include:

- Has the rail been constructed within existing KiwiRail tolerances?
- Are the KiwiRail rail tolerances fit for purpose when there is a range of wheel profiles running on the line?
- What can be learnt from this incident about wheel profile tolerances? Reviewing selected incidents, from existing available reports and selected interviews with nominated KiwiRail Staff:
- Review current engineering change processes, including what is defined as an engineering change, current processes, standards, etc. Includes all standards relevant to new rolling stock or changes to track standards and tolerances, including timing of;
  - Comment on possible broader implications, including;
  - Current rolling stock maintenance intervals; and
  - o 2029 future rolling stock (Lower North Island Rail Integrated Mobility<sup>2</sup>).

## 2 Methodology

### 2.1 Interviews

Interviews with 17 people were held on throughout March and April via Microsoft Teams and in person at KiwiRail Offices, GWRC Offices, and at the Hyundai Rotem workshop. Relevant documents and information were identified through the course of the interviews, and is listed in Appendix A.

<sup>&</sup>lt;sup>2</sup> https://www.gw.govt.nz/document/19521/detailed-business-case-lower-north-island-rail-integrated-mobility-2021/



### 2.2 Document and Information Reviewed

Through the interview process, several documents and a variety of information was requested and provided. Those documents identified as most relevant to the scope of this review are listed in Appendix A. A quick turn-around for findings and recommendations was requested, hence this review summarises all provided information.

## 2.3 Scope Exclusions

Given the timeframes to complete, interviews were ~1-2 hours long each, and questions were focused predominantly on the scope and what supporting information was available. As such no detailed additional analysis or detailed investigations were possible.

## 2.4 Inherent Limitations

In carrying out our review, we have undertaken tests of selected controls as appropriate. Occasions may arise where the nature of the controls, the lack of controls or circumstances of the independent review require us to undertake alternative review procedures. The decision to test, or not to test controls, is made by us solely at our discretion. Because of the inherent limitations in any system of internal control, errors, fraud, or irregularities may occur and may not be detected.

Our independent review fieldwork was completed on 10<sup>th</sup> April 2024. Our findings are expressed as at that date. We have no responsibility to update this report for events or circumstances occurring after that date.

# 3 Findings

## 3.1 Planning and Delivery of Capital Works

The scope of work and design for the Wairarapa line is compliant to KiwiRail Track Standards and tolerances according to EM80 data, using standard concrete sleepers, 50kg/m rail, and ballast cleaning to increase asset condition and track quality. The works completed was identified from the existing KiwiRail maintenance work bank, which then went through internal KiwiRail reviews and approvals. No wider consultation occurred as all planned works was within existing KiwiRail standards and tolerances, hence no change or contract requirement to engage.

Works have been delivered predominantly by local KiwiRail teams utilising existing standards and task instructions. Track gauge is inspected, as per T-TI-WO-5926 – Face re-sleepering, with "Documentation associated with the assessment for speed and clearing for passage of rail traffic must be compiled and cited by the Production Manager before handing back to traffic".

Rail grinding post rerailing, as defined in the rail management standard, is an activity that is programmed based on track curve radii and route tonnage. Grinding tangent track will improve the rail wheel interface, but typically curved track with high tonnes has increased benefit by moving the contact band away from the stress zone on the rail head.

The Wairarapa Line is predominantly tangent track with low tonnage (e.g. 1.1 Million Gross Tonnes Per Annum MGTPA vs Wellington to Trentham which is 4.3 MGTPA), hence grinding post rerailing would have been proactively prioritised relative to other parts of the network. Passenger services also make up ~70% of Wairarapa Line tonnage, so predominately passenger services with minor freight.



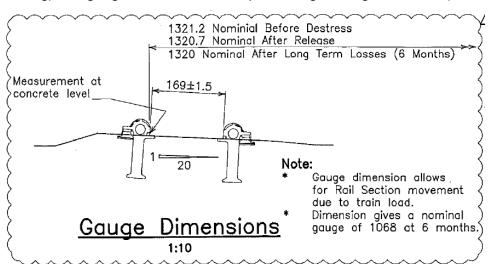
Grinding alone will also not significantly reduce the likelihood of hunting of SW-type carriages. Grinding will however help by creating a smoother wheel-rail interface, improving contact rail wheel, and reducing frictional forces that may contribute to the lateral instability of trains.

### Summary Findings

- Roles and responsibilities for review and approval of planned works, and completed works utilised existing internal KiwiRail standards and processes
- Design, the materials used, and installation methods are defined in KiwiRail standards (listed in Appendix A)
- Grinding is prioritised across the network to optimise the cost against longer-term preventative maintenance
- Grinding of tangent track will improve the rail wheel interface in the short-term but will not significantly reduce the likelihood of hunting of SW-type carriages

## 3.2 Track Tolerances

The track gauge on tangent (straight) track is 1068mm, with a construction installed tolerance on concrete sleepers as completed on the Wairarapa Line, of between +2 and -4mm (T-ST-DE-5200 Track Design). The greater lower tolerance of - 4mm is needed as over time rails will "settle in" and the gauge will widen over time towards a nominal 1068mm (see Note below in Figure 2). A gauge of 1068mm after 6 months is not a set target but indicates depending on multiple factors (e.g. train loading) that gauge will be within acceptable engineering tolerances (i.e. nominal gauge).



**Figure 2.** Standard Drawing (September 2011), identifying how a gauge narrower than 1068mm is designed, as it assumes movement will occur over time, depending on the frequency of train tonnage, but a nominal gauge of 1068mm could be expected after 6 months.

The EM80 measured the line on 7<sup>th</sup> December 2023, between 32.6km and 91.4km and gauge was found to be within engineering tolerance, with only two faults associated with track gauge identified at 32.8km (1052mm on a turnout) and 63.1km (1060mm on a bridge). It can be seen on the EM80 report where the gauge is less than and greater than 1068mm, but additionally it confirms no technical faults (i.e. track geometry including gauge is within allowable measured engineering tolerances) directly correlate to reported hunting.



The EM80 report also identifies where a trial was done by KiwiRail to widen the gauge, which confirms in the December 2023 EM80 data that between 68.3km - 68.8km track gauge was 1071mm (vs 1066mm either side of the trial). This trial also found that when the track gauge was widened by changing the insulator configuration (i.e. reclipping), increasing the gap between the rail head and wheels (rail wheel interface gap), measured hunting was reduced, although not fully tested with all SW-type carriages at speeds greater that 60km/hour.

A Ground Penetrating Radar report, published April 2019, between 19km and 91km was also reviewed, to see if current vibration locations correlated with possible poor track bed condition. This report showed that track bed is more or less consistent and there was no evident correlation of vibration issues to changes in track bed condition.

Rerailing has changed the rails from imperial 91lb/yard to metric 50kg/m rail, so CAD drawings were redrawn to double check the gauge using concrete sleepers. This drawing supported what is being seen on site, with track gauge measuring a minimum of ~1064mm, the EM80 measuring under dynamic testing ~1066mm, with movement over time expected to create a nominal 1068mm gauge (i.e. 1064mm-1070mm is the documented tolerance).

## Summary Findings

- Track gauge is 1068mm
- Allowable engineering tolerances for the Wairarapa Line on concrete sleepers with 50kg/m rail is 1064mm to 1070mm (i.e. nominal gauge)
- Measurements and analysis show track geometry, according to KiwiRail track standards, are within defined engineering tolerances
- When track gauge was widened (68.3km 68.8km) by changing insulators (i.e. reclipping) track gauge was 1071mm (EM80 measure), hunting was measured to be less prevalent between 60km/hr and 80km/hr, confirming the relevance of the rail wheel interface gap

## 3.3 Carriage Wheelset Tolerances and Bogie Maintenance

The maintenance records and inspections for bogies, together with profile tolerances for wheelsets and back-to-back measurements, are relevant factors that contribute to the rail wheel interface. Relevant documents relating to tolerances and inspections include:

- National Rail System Standard/6 Engineering Interoperability Standards (NRSS/6) -April 2013, including SW-type wheelset profiles and back-to-back measurements.
- M9311 X28020 Maintenance Guide (September 2019) for SW-type carriages includes guidance on excess lateral movement and bogies reported as oscillating.
- M6000-100 Wheelset Manual Wheelset Specifications (July 2021) for SW-type carriage wheelsets (X28020), including wheel diameter, rim thickness, tread diameter, and flange profile.

SW-type bogies have distance-based overhauls at "D1" 400,000km and "D2" 800,000km. Depending on carriage utilisation these overhauls typically occur every 4-5 years, with five carriages in the plan for next year. Wheelsets have on average four inspections per year, with:

 "A Inspection" at 12,000km (circa three-monthly) which checks the required dimensions against three types of pre-defined wheelset profiles (as defined in National Rail System Standard/6 – Engineering Interoperability Standards);



- "B Inspection" at 24,000km (circa three-monthly) which has broader checks, but also confirms the wheelset dimensions against the three types of pre-defined wheelset profiles;
- A further "A Inspection" at 36,000km, as above; and then
- An Annual Inspection, every 12 months, where carriages are taken out of service and given a more comprehensive inspection.

Currently, as per the defined wheelset profiles in NRSS/6, 17 carriages wheels are at C1, with one at C2 which was recently been reprofiled. A C1 profile has the same conicity as a C2 profile, however the flange thickness is reduced by 2mm on each wheel, increasing the rail wheel interface gap by 2mm. A C3 wheel profile also has the same conicity but reduces the rail flange by another 2mm.

Since hunting was first reported in SW-type carriages in 2022, there has been an increase, in their wear liners and brake block failures. The lateral movement of the wheelsets is also evident with increased "fretting" between metal-to-metal contact points (see Table 1 and Appendix C - SW-type increased maintenance photos). Table 1 also reveals that in 2024 those carriages with the majority of 995 back-to-back or a C2 profile have all had work done, possibly due to them operating within C1 or 997mm train consists and having increased vibrations transfer between carriage types. Overall, between 2020 and 2024, average work orders for the 995mm back-to-back are lower. There has also been no change in the suppliers or specifications of wear liners or brake blocks during this time.

**Table 1.** Work orders raised to replace brake blocks and wear liners across SW-type carriages.



Back-to-back dimensions of wheels is defined in NRSS/6 as "the dimensions between inside faces of wheels or tyres on a wheelset must be between 997 and 998mm". However, in September 2016, KiwiRail amended their internal back-to-back wheel press measurement via an Engineering Change Request (ECR1016) to 994 – 996mm. NRSS/6 has not been updated to reflect this change, and Transdev and Hyundai Rotem reportedly only became aware of the change in March 2024.



KiwiRail has supplied wheelsets to Transdev and Hyundai Rotem since mid-2016 and has been progressively changing to KiwiRail's new standard of 994 - 996mm. Potentially, new wheelsets pressed to ECR1016 should have a concession from NRSS/6 provided by KiwiRail. As to date, Transdev states no formal notice has been received from KiwiRail to instruct them on this change.

From information provided during the review (see Appendix A), the reduction in back-to-back measurement is however also advantageous to reducing hunting, as the contact point moves 2mm toward the outside of the tread, and away from the higher conicity flange root area (i.e. improving the rail wheel interface) (Transdev Report 2024).

Data loggers placed in four carriages have been measuring the actual forces generated in the carriages (Figure 3). Varying locations were identified within the carriages for data loggers to be installed, which also confirmed increased forces measured directly above the bogies versus loggers located in the centre of the carriage.

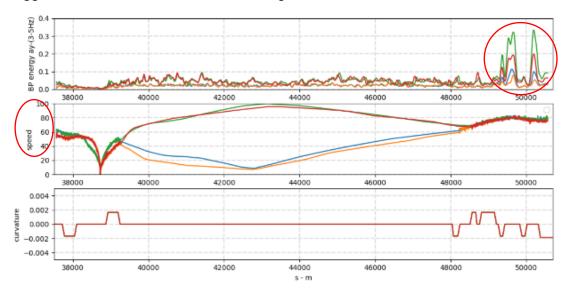


Figure 3. Data logger information recording hunting at ~49km at 80km/hour

### Summary Findings

- Bogies and wheelsets are inspected and maintained at regular set time and distance-based intervals.
- Wheelset profiles are all within defined tolerances, with 17 of the 18 at C1, and one at C2
- There is variance between the carriages on back-to-back dimensions, with 14 between 997-998mm and 4 between 994-996mm
- Confirmation on the implications and history of ECR changing the back-to-back dimensions needs further investigating

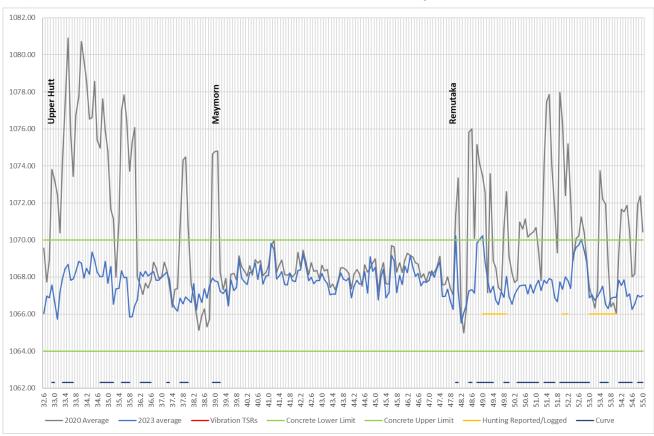


# 4 Supporting Analysis – Identified Causal Factors

The following section reviews measurements relevant to the rail wheel interface, as it is likely changes in the rail wheel interface gap is the primary cause of hunting in SW-type carriages.

## 4.1 Track Gauge Changes

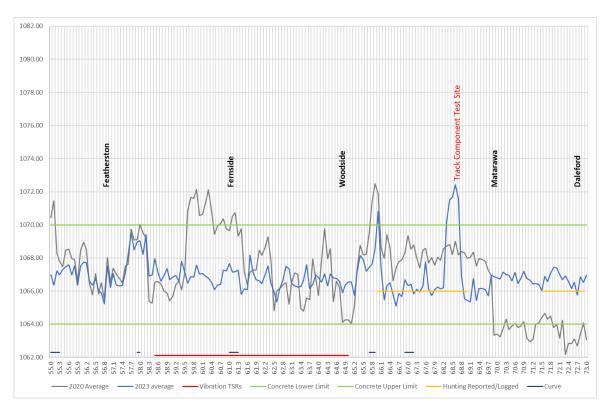
EM80 gauge data for from April 2020 was obtained, as this was effectively the baseline of track gauge before hunting was reported. EM80 gauge data is a standard measure of track gauge across the network in New Zealand, as the EM80 is regularly calibrated to enable consistent measurement. Since then, the only parameters in the track and train systems on the Wairarapa Line that have changed, are rerailing and re-sleepering renewals. So the 2020 EM80 data<sup>3</sup> was compared to the most recent December 2023 EM80 data, see Figures 4 – 7 below.



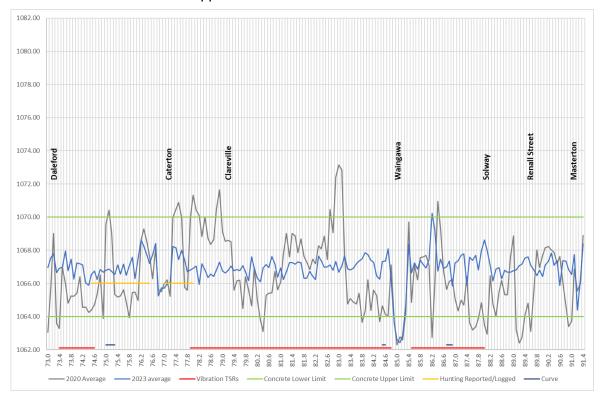
**Figure 4**. 2020 April EM80 data, 2023 December data, upper and lower tolerances for concrete sleepers (1068mm -4mm to +2mm), data logged/reported hunting between 32.6km to 55km. Current vibration TSRs and approximate curve locations also added at bottom of chart for context

<sup>&</sup>lt;sup>3</sup> EM80 gauge data was averaged to every 100m to enable sufficient data points



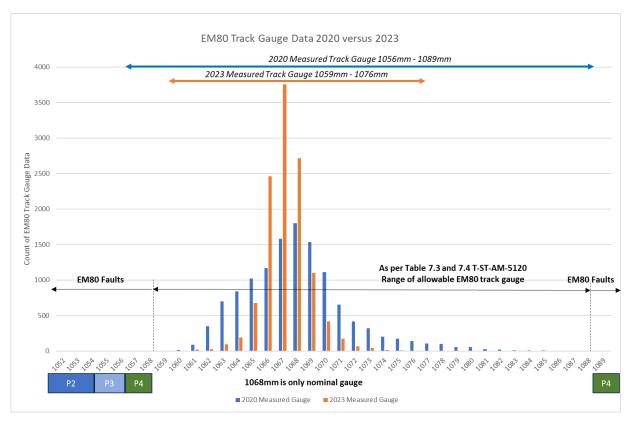


**Figure 5.** 2020 April EM80 data, 2023 December data, upper and lower tolerances for concrete sleepers (1068mm -4mm to +2mm), data logged/reported hunting between 55km to 73km. Current vibration TSRs and approximate curve locations also added at bottom of chart for context



**Figure 6.** 2020 April EM80 data, 2023 December data, upper and lower tolerances for concrete sleepers (1068mm -4mm to +2mm), data logged/reported hunting between 73km to 91.4km. Current vibration TSRs and approximate curve locations also added at bottom of chart for context





**Figure 7.** 2020 April EM80 versus 2023 December EM80 track gauge ranges, including EM80 defect notification tolerance and P ratings (as per T-ST-AM-5120 Track Standard: Track Geometry)

The quantum of catch-up renewals, shown in Figure 7, has achieved a 32% improvement on nominal gauge variability (1066mm-1070mm) from 2020 to 2023, with EM80 data revealing:

- 2023 track gauge data, 89% between 1066mm and 1070mm, with 96% between 1064mm and 1070mm
- 2020 track gauge data, 57% between 1066mm and 1070mm, with 96% between 1062mm and 1076mm.

### Summary Findings

Reviewing the charts in Figures 4 - 7 reveals that overall:

- Track gauge variability between Upper Hutt (32.6km) and Masterton (91.4km) has improved from 2020 to 2023, because of the renewal works completed. The graphs show a 2023 track gauge is ~90% between 1066mm and 1070mm. So track gauge variability and tolerance has improved towards the nominal 1068mm
- 2020 track gauge had more variability, including more sections that are less than 1066mm, and some that are significantly greater than 1070mm. It was unexpected to find the gauge narrower back in 2020, however the rail head profile may have been more worn in these areas, on more flexible wooden sleepers, hence SW-type carriages were able to be more tolerant of this narrower gauge. The wider gauge would have been most likely due to wooden sleepers with more movement whilst be measured under load by the EM80
- Data loggers have recorded in some carriages hunting in isolated sections where track gauge is closer to 1066mm (e.g. ~66-69km and ~71.5-73km). Other areas reported and recorded for hunting are not as conclusive (e.g. ~49km-49.9, ~52-52.2km, ~53-54km,



~74.5-76.5km, and ~77-78km). Whilst other sections with gauge closer to 1066mm have also had no hunting recorded or reported to date.

### 4.2 Wheelset Profiles and Back-to-Back dimensions

The 2023 EM80 data identifies that the track gauge post completed works is predominantly between 1066mm and 1070mm. Wheelset dimensions also influence the ride quality of a carriage, so if track gauge now has less variability, wheel flange width and back-to-back measurements need to be examined. See Figure 8 for key measurements, and Table 2, for nominal rail wheel gap assessment.

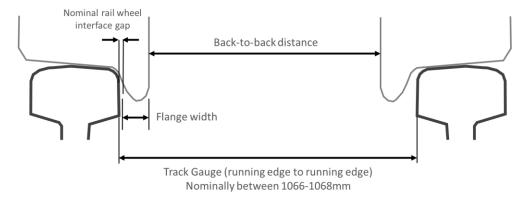


Figure 8. Nominal rail wheel interface gap, key dimensions that influence the gap.

**Table 2.** Nominal rail wheel interface gap analysis. Down the left side, identifies there are two different back-to-back dimensions in SW-type carriages, interfacing with a range of track gauges (1064mm-1070mm), that are then influenced by the wheel profiles C1 – C3 (with reducing wheel flange thicknesses 28mm-24mm).

				•				en = 11114		
		Back to Back		Remaining						
		998-997	1064-1070			L - Nominal Gap	_	- Nominal Gap	_	3 - Nominal Gap
		996-994			28		26		24	
S		998	1070	72	16	8	20	10	24	12
age		998	1068	70	14	7	18	9	22	11
arri:		998	1066	68	12	6	16	8	20	10
e C		998	1064	66	10	5	14	7	18	9
14 SW-type carriages		997	1070	73	17	8.5	21	10.5	25	12.5
≶		997	1068	71	15	7.5	19	9.5	23	11.5
14 S		997	1066	69	13	6.5	17	8.5	21	10.5
_		997	1064	67	11	5.5	15	7.5	19	9.5
	SWG5671,	996	1070	74	18	9	22	11	26	13
		996	1068	72	16	8	20	10	24	12
		996	1066	70	14	7	18	9	22	11
ge		996	1064	68	12	6	16	8	20	10
4 SW-type carriages		995	1070	75	19	9.5	23	11.5	27	13.5
ca	SWG3422, SW3349	995	1068	73	17	8.5	21	10.5	25	12.5
ď	8 8	995	1066	71	15	7.5	19	9.5	23	11.5
 ₹	S	995	1064	69	13	6.5	17	8.5	21	10.5
4 S	SW3349,	994	1070	76	20	10	24	12	28	14
-	<b>№</b>	994	1068	74	18	9	22	11	26	13
	5	994	1066	72	16	8	20	10	24	12
		994	1064	70	14	7	18	9	22	11

**Note:** Red indicates that at these rail wheel interface gaps, hunting is likely to be more prevalent. The Technical Report from October 2000 also suggested that the rail wheel interface gap for new wheels on new 50kg/m rails is approximately 9-11mm, which is more likely to be achieved on a C2 wheel profile.



## Summary Findings

Reviewing the information in Table 2 it is likely that:

- The 14 SW-type carriages, with a back-to-back of 997 998mm, and a C1 wheel profile, will be most at risk of hunting on gauges less than 1068mm on tangent track. This is most likely due to the suspension design having a lower inherent ability to dampen forces out associated with hunting compared to more recent bogie designs (e.g. Martangi carriages)
- The 4 SW-type carriages, with a back-to-back of 994 996mm, and a C1 wheel profile, are also at risk of hunting on gauges of 1066 and below. This is most likely due to the suspension design having a lower inherent ability to dampen forces out associated with hunting. Additionally, as C1 wheel profiles become more worn, they will also change the contact point and rail wheel interface gap, increasing the likelihood of hunting
- Hunting in SW type carriages looks less likely to occur when wheel profiles are C2 or C3 (narrower flange widths), as the rail wheel interface gap is improved with no change in conicity (also see Appendix C - Differences between C1 and C2 asset condition).

## 4.3 Answers to specific questions

Specific questions to be answered were as follows.

Has the rail been constructed within existing KiwiRail tolerances?

Yes, based on KiwiRail standards provided and the current EM80 data, the renewals planned and delivered have been built and are compliant within documented KiwiRail tolerances.

Are the KiwiRail rail tolerances fit for purpose when there is a range of wheel profiles running on the line?

Further information from data loggers in other passenger carriages and trains in the Wellington Metro area is needed to validate if hunting is occurring elsewhere on the network, as:

- If hunting is confirmed as only occurring in SW-type carriages, and not extensively in other carriages and trains, then yes current documented tolerances in KiwiRail standards are fit for purpose. As hunting in SW-type carriages is isolated to an unknown sensitivity within their bogie suspension design, that increases the likelihood of hunting at line speeds greater than 60km/hr, on tangent (straight) track, when track gauge is less than 1066mm on concrete sleepers; or
- If hunting is confirmed by data loggers in other carriages and trains across the Wellington Metro network, then documented tolerances in KiwiRail standards may need further review. However, further work will be needed to identify possible changes in KiwiRail standards and/or other interoperability documents. All changes identified will need to be tested and updated in relevant documents in close consultation with all relevant parties.

What can be learnt from this incident about wheel profile tolerances? Reviewing selected incidents, from existing available reports and selected interviews with nominated KiwiRail Staff;

• The rail wheel interface gap is a critical area of the rail system. Wheel profiles together with track gauge and the rail head profile are key factors in train and carriage interoperability and longer-term track and wheelset maintenance implications. National Rail System Standard / 6 – Engineering Interoperability Standards needs to be updated, based on findings from data loggers and other known documented changes in KiwiRail standards since 2013 (e.g. changes in back-to-back dimensions).



Review current engineering change processes, including what is defined as an engineering change, current processes, standards, etc. Includes all standards relevant to new rolling stock or changes to track standards and tolerances, including timing of;

- o Comment on possible broader implications, including;
- o Current rolling stock maintenance intervals; and
- 2029 future rolling stock (Lower North Island Rail Integrated Mobility⁴).
- Currently there is no documented requirement for KiwiRail to consult with Greater Wellington Regional Council on any changes to KiwiRail Standards. Additionally, the changes and updates that have occurred in the Track Standards listed in Appendix A, are mostly improvements and refinements within existing tolerances, not significant changes that would impact the rail system interoperability. However, the implications of 2016 Engineering Change Request updating the back-to-back needs to be further investigated, together with open consultation on the updates needed to NRRS/6 in light of the increased hunting in SW-type carriages and pending confirmation of changes that will reduce it.

<sup>&</sup>lt;sup>4</sup> https://www.gw.govt.nz/document/19521/detailed-business-case-lower-north-island-rail-integrated-mobility-2021/



#### 5 Possible options to reduce the likelihood of hunting

Options to reduce the likelihood of hunting from SW-type carriages are presented in Table 3. All options consider track and wheelset works, in the short-term and over the longer-term, to reduce the impact to passenger services. A longer-term view is important with new trains in 2029.

Table 3. Range of possible options to reduce the likelihood of hunting.

Option	าร	Risks	Costs between now and 2029	Service Impact
A) SW-type Carriag restricted on the <60km/hr.  No other works	network to	Increasing risk of damage and defects to rails and carriages. Increasing risk over time that speed restrictions could reduce down further to 40km/hour	MODERATE - No cost to implement but likely increased maintenance costs longer term.	Significant impact to the travelling public, with speed restrictions increasing travelling time, and disrupting other services on the network.
B) Change track con pads or insulator the track gauge t <b>No other works</b>	s) to increase o 1070mm.	Increasing risk of damage and rail defects due to suboptimal contact point and rail wheel interface (e.g. rolling contact fatigue).  Not fully tested as a viable option	MODERATE – Time needed to change components to widen. Additional track and wheel costs over the longer-term as rail wheel interface remains suboptimal.	Potential increase in track and wheel maintenance over the longer-term, increasing disruptions to train services, due to suboptimal contact point and rail wheel interface.
C) SW-type carriage gradually reprofil back-to-back gra to 995mm (ECR No other works	ed to C2 and dually changed 1016).	Time to complete, and potential changes to existing maintenance intervals and interventions.  Risk of rail defects due to suboptimal contact point and rail wheel interface (e.g. rolling contact fatigue).	MODERATE – Costs associated with reprofiling and changes in back-to-back dimensions.  Possible additional track maintenance costs as rail wheel interface remains suboptimal.	Wheelset changes may not be enough to improve rail wheel interface gap on new rails with low tonnage (i.e. rail head profile not optimal) so isolated speed restrictions may still be needed.
D) Rail grinding only the rail head prof <b>No other works</b>	ile.	Fire ban limiting access to complete. Access will need to be coordinated around other works. Time to complete, and possible changes to existing planned work.	MODERATE – Costs associated with grinding.  Possible additional track and wheel maintenance costs if rail wheel interface remains suboptimal.	Works unlikely to improve rail wheel interface gap over the longer-term, and speed restrictions likely to still be needed.
E) Combination of rawheelset reprofili improves rail heawheelset reprofili with possible graback changes to improve the rail v	ng. Grinding ad profile, and ing to C2 and dual back-to- 995mm,	Fire ban limiting access to complete. Access will need to be coordinated around other works. Time to complete, and possible changes to existing planned work.	HIGH – Targeted works to improve the rail wheel interface gap and rail head profile (contact point)	Staged approach, to validate engineering tolerances and optimum wheel profile tolerances. Speed restrictions could be progressively removed if data loggers confirm reduction in hunting. Improved ride quality and least long term disruption.



#### 6 Key Recommendations

From the information provided and analysis presented, we identify the following recommendations.

#### 6.1 Reducing the likelihood of hunting in SW-type carriages

The completion of rerailing and re-sleepering works, reducing gauge variability from 2020 to 2023, has changed the rail wheel interface gap and increases the likelihood of hunting in SW-type carriages. SW-type carriages due to unforeseen suspension characteristics and possible lighter tonnage (when compared to Martangi and SE) have less ability to dampen the forces from hunting, hence transferring it through into the carriages as vibrations. The SW carriage bogie suspension configuration utilises spring primary and spring secondary suspension with no lateral damping between the bogie and carbody. The SE carriage and Matangi bogies (although different in design) utilise a suspension configuration with spring primary and airbag secondary suspension. In addition, the SE carriage and Matangi have a lateral damper between the bogie and carbody. Transdev believe that both the SW and SE carriage bogies are possibly exhibiting hunting, but the lateral damper found on the SE carriages is reducing the accelerations to the carriage. However, KiwiRail have found no increased damage to track components in Wellington, nor has Auckland Metro had reported increasing track damage from a similar renewal works, suggesting that if hunting is more prevalent it is not impacting the track.

Track work has improved and decreased the gauge variability across the Wairarapa line, so work to further modify the track gauge should only be considered as a last option. As widening track gauge beyond 1070mm would increase track gauge variability, effectively taking the network back towards a 2020 condition level, which could then increase the level of wheel and track maintenance needed over the longer-term. Hence, improving the rail wheel interface with staged targeted changes that improve the gap and rail head profile should be prioritised first. As improving the rail wheel interface is the best outcome for GWRC and KiwiRail, as it is likely to decrease the longer-term maintenance for both track and SW-type carriages.

Grinding is needed, which although it will not eliminate hunting over the longer-term, is an important factor to improve rail wheel interface. KiwiRail will need to confirm the rail head profile that needs to be achieved by grinding relative to the conicity of SW-type carriage wheelsets. Works will need to be planned in and progressively completed, so testing with data loggers can confirm what improvements have been achieved (i.e. unground baseline vs ground movements).

Progressive testing with data loggers of changes is essential to understand what improvements are being achieved. A complete train consist with all carriages on C2 wheel profiles on a 997mm back-to-back needs to be tested first, as the reduction in flange width is likely to improve the rail wheel gap. Works will need to be planned in and completed, so sufficient testing with data loggers can record a baseline (i.e. hunting) on a C1 wheel profile at 60km/hour, and what improvements have been achieved by changing to C2 wheel profile with a 997mm back-to-back at 60km/hour. If data recorded shows hunting is reduced or eliminated at 60km/hour, then test trains using a C2 wheel profiles on a 997mm back-to-back needs to be progressively tested at increasing speeds, possibly up to 100km/hr.

Depending on data logger results with a C2 wheel profile on 997mm back-to-back, a complete train consist with all carriages on C2 wheel profiles with 995mm back-to-back could then be tested. As the reduction in the back-to-back will also improve the rail wheel gap. Works will need to be progressively completed, so testing with data loggers can show a baseline (i.e. hunting) on a C1 wheel profile at 997mm, then at C2 wheel profile on 997mm, and what improvements have been achieved at 60km/hour, to possibly 100km/hr.



#### 6.2 Wider implications to be investigated

There are anecdotal reports of other trains on other parts of the Wellington Metro having reports of vibrations and rough rides. To confirm or eliminate these reports additional data loggers are needed on other passenger carriages (e.g. Martangi and SE-type carriages). Data loggers will need to be in place for at least two weeks, across multiple carriages, to collect sufficient data at varying speeds to provide conclusive information that can be relied on.

#### 6.3 Updating of documents

National Rail System Standard 6 – Engineering Interoperability Standards was last updated over ten years (April 2013). This document needs to be reviewed, in alignment with all other relevant standards, and updated, specifically around back-to-back dimensions and wheel profile flange widths. Once updated it then needs to go through the standard change control process, including consultation and feedback, before being adopted on an agreed date. The sharing of Auckland and Wellington Metro Interoperability lessons within existing joint forums or meetings, together with communicating planned changes that could impact the rail system, would also be beneficial for both metro rail systems.

#### 6.4 Interoperability of new trains in 2029

With new trains planned for 2029, the rail wheel interface needs to be key component that is verified before their design is approved. Learnings from recent new trains on the Auckland Metro network, together with information from data loggers on the Wellington Metro network, needs to be factored in to confirm design has considered:

- Wheel profile, including conicity;
- Flange width and back-to-back measurements relative to defined and known track gauge tolerances;
   and
- Bogie suspension characteristics.



### Appendix A: Documents Reviewed

Туре	Document	Relevancy
Email	FW: MIS 346W Transdev 77km 78.2km Wrapa	First notification
Email	Re WRAPA - Vibration issue	Investigations
Website	https://www.kiwirail.co.nz/our-network/our-regions/wellington/wairarapa-line/	Scope of works
Brochure	Wairarapa Line Upgrade – February 2024	Scope of works
Document	KiwiRail T200 Track Handbook – Revised Issue 7 – Effective 30 <sup>th</sup> September 2022	Engineering Tolerances
Document	Track Standard - T-ST-DE-5200 Track Design – December 2022	Engineering Tolerances
Document	Track Standard – T-ST-AM-5330 Rail Management – December 2022	Wairarapa Line tonnage (MGTPA)
Document	Track Standard – T-ST-AM-5320 Sleeper Fastenings – Sept 2021	Concrete Sleepers
Document	Track Standard – T-SP-MM-60156 Rail Grinding – June 2022	Grinding Frequency
Document	Track Standard – T-TI-WO-5926 Face Re-sleepering – Dec 2022	Gauge check post re-sleepering
Document	Track Standard - T-ST-AM-5120 Track Geometry	EM80 Gauge tolerances
Report	EM80 Upper Hutt ~ Masterton Data – April 2020	Track Gauge Measurements
Report	EM80 Upper Hutt ~ Masterton Data – December 2023	Track Gauge Measurements
Report	GPR Data WRAPA TSR Vibration mark up	Measurements
Drawing	NZR 50kg – 91lb Rail Sleeper Gauge Measurements V2	Measurements
Drawing	60kg 25 Tonne Concrete Sleeper	Measurements
Document	M9311 X28020 Maintenance Guide	Trouble shooting
Document	M6000-100 Wheelset Manual – Wheelset Specifications	Wheel tolerances
Document	M6000-101 Approved tread profiles	Wheel tolerances
Document	National Rail System Standard / 6 – Engineering Interoperability Standards	Wheel tolerances
Document	Wheel and Rail Profile Development – Rail Industry Safety and Standards Board	Wheel tolerances
Report	Technical Report TR.071 – Rail-Wheel Interface Improvement Investigation for Tranz Rail – Version 3.0 October 2000	Track and wheel tolerances
Document	Engineering Change Request (ECR) Wheelset Back-to-Back Dimension Change – September 2016	Back-to-back distance change
Report	Bogue Vibrations – SW Cars asset degradation solutions and remedies – Hyundai Rotem	Increased maintenance
Data	Brake block and wear liners Work Orders	Increased maintenance



Document	ECR no.1016 Wheelset Back-to-Back Dimensions Change	Internal change in back-to-back
Email	FW WMUP WL works – Impact of TSRs and Work	Works completed
Report	Wairarapa Carriage Hunting – Transdev	Increased maintenance
Report	Wairarapa Train Vibration - Notes	Vibration analysis and findings
Report	Wairarapa Line – CEMIT Presentation	Vibration analysis and findings
Business Case	Single-Stage Business Case Wellington Metro Railway Network Track Infrastructure Catch Up Renewals – November 2017	Asset condition and history, and renewals needed

Unless specifically stated otherwise in this report, Beca has relied on the accuracy, completeness, currency and sufficiency of all information provided to it by, or on behalf of, the Client, including the information listed above, and has not sought independently to verify the information provide



#### Appendix B: Relevant documents history

A large amount of supporting and historical documentation was provided throughout the review (Appendix A), with key documents summarised as follows.

October 2000 – Technical Report for Tranz Rail – Rail Wheel Interface Improvement Investigation This report identifies:

- How improved wheel and rail profiles create benefits such as reduced level of vehicle hunting, particularly in tangent track.
- A major objective for tangent track is to avoid hunting, as this causes component
  deterioration and passenger discomfort, which is best obtained by maintaining contact near
  the centre of the running surface of the rail (i.e. widening the gauge moves the contact
  band to the inside edge of the rail).
- How a combination of worn wheel with new rail leads can caused a very localised contact in the gauge corner, increasing the risks of rolling contact fatigue.
- Track gauge is 1068 and all wheelsets have a 997mm back-to-back
- Depending on where you measure from, the expectant rail wheel interface gap for new wheels on new 50kg/m rails is approximately 9-11mm. This gap is similar to narrow gauge railways in Australia.
- An increase in the rail wheel clearance would generally be expected to reduce rail and
  wheel wear. The main reason is that the resultant larger wheelset lateral movements allow
  an increased rolling radius difference between the wheels to be established and hence
  higher steering forces, particularly in profiled rails and wheels.
- Grinding delivers significant benefits to prevent defect growth and can extend the rail life by about 50-100%. Grinding on tangent track can also improve the rail head profile and reduce possible vehicle hunting.
- Grinding also reduces rates of wheel deterioration (flange wear, tread hollowing and contact fatigue), due to improved wheel/rail contact and interaction characteristics. And reduce damage to various vehicle components, including wheels, bearings and sometimes bogies.
- Obtaining the optimal rail wheel profile, with a definite two-point and relatively broad contact near the centre of the running surface of tangent rails, reduces the effective conicity between rails and wheels, and hence reduces the sensitivity to vehicle hunting and adverse vehicle/track dynamics.
- Promotes the benefits of modified wheel profiles, including up to 90% reduction in flange energy on modified wheel profiles
- In the short term, the modified wheel profiles should be introduced on both passenger and freight bogies, at least for trial purposes. During the trials, particular attention should be paid to the vehicle dynamics at the higher speeds in tangent track and shallow curves. This aspect is of importance considering that the modified wheel profile does have a fuller throat region, which could increase the vehicle dynamic response when the wheel throat approaches the rail gauge corner. If this is found to be a cause for concern, the following three options are available:

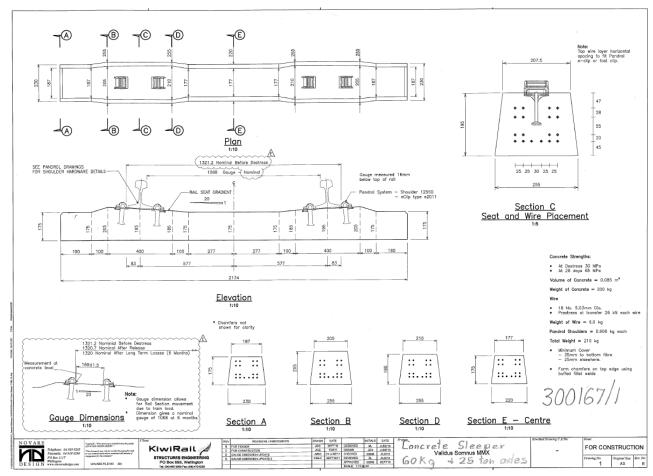


- reduce the wheelset back-to-back distance by 4-5 mm, as discussed in Section 5.9 of the report; and/or
- o reduce the wheel flange thickness by up to 2 mm; and/or
- apply the tangent rail profile by rail grinding, as discussed in Section 6 of the report, in both tangent track and curves with radii above 1000 m, where rail gauge face/wheel flange wear will be negligible.

#### September 2011 - Concrete Sleeper Design

#### This documented was:

- First published in September 2010, and last updated in September 2011
- States the gauge dimensions allows for Rail Section movement due to train load, and dimensions for nominal gauge of 1068mm after 6 months (i.e. close to 1068mm)



**Figure 9.** KiwiRail Standard Drawing for 60kg Sleeper – Approved September 2010, last updated September 2011

April 2013 National Rail System Standard / 6 – Engineering Interoperability Standards

#### This standard includes:

• The 50kg/m unworn rail profile (from 1987)



- The back-to-back dimensions between inside faces of wheels or tyres on a wheelset must be between 997.0 mm and 998.0 mm, measured at three, equidistant positions around the circumference using gauge Y/X 4603/10.
- Wheel profiles must be to a National Rail System standard. Modified Heumann profile
  wheels with a fundamental tread conicity of 1 in 20 are used on the National Rail System.
  The current family of acceptable profiles is shown on drawings 7604/11 7604/13 in
  Appendix A (see Figure 10).

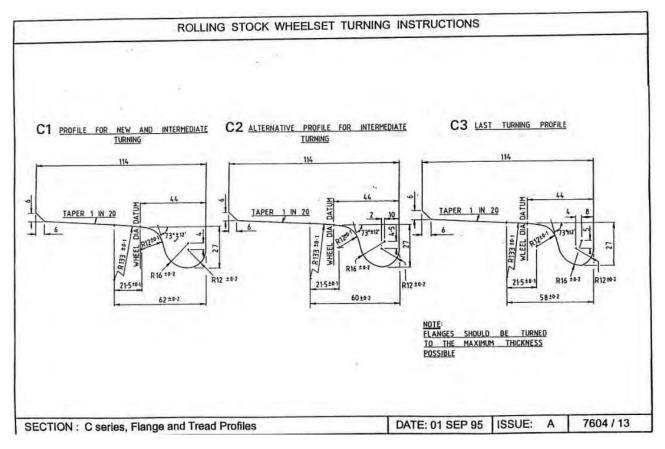


Figure 10. Rolling Stock Wheelset Turning Instructions, dated September 1995.

- The relevant track standards affecting rail vehicle static and dynamic stability primarily reside in the following of the Access Provider documents (as updated from time to time):
  - o T200 Infrastructure Engineering Handbook
  - o T003 Track Code
  - o T100 Track Supplements
- These standards encompass the following:
  - o Track gauge
  - Track construction and maintenance standards



September 2016 Engineering Change Request – Wheelset Back-to-Back Dimension Change (NCR1016)
This internal KiwiRail change request provides the following:

- Change Description Reduce wheelset back-to-back dimension from current 997 (+1,-0) to 995 (+/-1). Agreement email from AME&I attached (note not attached on the version provided)
- Scope/ Assets involved All rail wheelsets (loco's, wagon, carriages). May not affect hi-rail vehicles
- Means of Identifying Change TBC
- Reason It has long been recognised that our current arrangement has the wheel profile sitting too
  far out relative to the rail head. This change does not go as far as ideal, but at least moves in the
  right direction.
- Risk/ Management Mixing wheelsets of different back-to-back dimensions on the same bogie is a
  potential problem, though it is debatable whether the outcome would be worse than having both
  wheelsets at the current back-to-back dimension. Requires further discussion.
- Effect on performance It should yield wheelsets that track better and have less inclination to hunting. Over time this should see a reduction in sharp flanges, with perhaps an increase in guttering as the driver for wheel turning (skidding aside).
- Operational Impact Theoretically there should be a fuel saving through less flange contact. May be difficult to measure.
- How will change be monitored and how often Needs new back-to-back gauge.
- How will change be implemented Issue change notification and amend codes, design drawings, specs. Can be immediate but does not preclude running existing wheelsets to end of useful life.
- Cost Benefit Cost is minimal just admin change of amending codes, drawings and specs. Savings
  accrue for less severe wheel turns and reduction of fuel consumption as new dimension starts to be
  dominant in fleet.

#### Track Standards

#### Relevant track standards include:

- Track Design, latest version 31/12/2022. Earlier revisions include 30/9/2021, 30/06/2019, 30/04/2017, and 3/03/2017;
- Rail Management, latest version 31/12/2022. Earlier revision includes 31/01/2018
- Rail Grinding, latest version 30/06/2022. Earlier revision includes 30/06/2019
- Sleeper fastenings, latest version 30/09/2021
- Face Re-sleepering, latest version 31/12/2022
- Track Geometry, latest version 3/03/2017



#### Appendix C: SW-type increased maintenance

# Issues affecting carriages: Brake Blocks







Brake blocks from myriad carriages; the failure mode is new

# Issues affecting carriages: Wear Liners





Worn wear liners with a very rough finish. Normally they are smooth and evenly worn

# Issues affecting carriages: Side bearer







Red-coloured side bearers being found across the fleet.

The red is indicative of iron fretting

#### Appendix C: Differences between C1 and C2 asset condition

### Issues affecting carriages – SWS3394 This car has a #2 profile







The bogies on SW3394 show much less evidence of fretting

### Issues affecting carriages – SWS3394 Comparison with another car







SW3394

SW5671

### Issues affecting carriages – SWS3394 Comparison with another car







SW3394

SW5671



Wairarapa Committee 28 May 2024 Report 24.228



#### For Information

#### **PUBLIC TRANSPORT UPDATE**

#### Te take mō te pūrongo Purpose

1. To inform the Wairarapa Committee (the Committee) of Metlink activities and performance relating to public transport in the Wairarapa.

#### Te tātaritanga Analysis

2. The paragraphs below provide an update on Metlink activities in the Wairarapa.

#### Update on activities – Rail

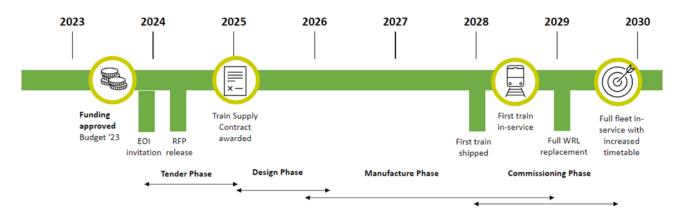
Network upgrades

- 3. Network upgrades have been challenging for users on the Wairarapa Line. Staff will provide an update on progress to resolve current disruptions related to the Wairarapa Line at the meeting.
- 4. An update on Wairarapa Line current disruptions and upgrades is included as separate item on the agenda for this meeting (*Report 24.224 Release of Wairarapa SW Carriage Rough Ride and Vibration Review*).

#### Lower North Island Rail Integrated Mobility

- 5. As part of Budget 2023, the Government agreed funding for the Lower North Island Rail Integrated Mobility (LNIRIM). LNIRIM is the primary inter-regional transport initiative being undertaken; it includes 18 four-car, tri-mode trains, and associated infrastructure, for the Wairarapa and Manawatū rail lines. It is expected that the new trains will quadruple peak-time services between Palmerston North and Wellington on the Manawatū line and double them between Masterton and Wellington on the Wairarapa Line.
- 6. The key milestones for the procurement of the LNIRIM fleet and maintenance services include:
  - a Approval of the Procurement Strategy
  - b Expression of Interest (EOI) release
  - c Short list bidders
  - d Request for Proposals release

- e Preferred supplier
- f Contract award
- 7. On 21 February 2024, Expressions of Interest (EOI) closed for providing a proposal to design, build and maintain 18 x 4-car low emission multiple units for improving the passenger rail service, capacity and frequency on Wairarapa and Manawatū lines. A satisfactory number of EOIs were received.
- 8. The following diagram sets out the indicative timeline for the Programme.



#### Wairarapa stations – bike parking improvements

9. Metlink has had \$267,000 of funding confirmed from the Government's Transport Choices programme for Masterton and Solway bike parking improvements. Civil works have been completed on both sites, bike racks have been manufactured, and shelter structures are waiting the final step for painting prior to installation on site. It is expected the new bike shelters will be fully operational in mid- 2024.

#### Bus replacement stops – update on work

- Carterton Station (bus boarding platform, access ramps, better connection to/from station platform and existing access ramp): Civil works for this stop are scheduled to be completed in June 2024.
- 11. Renall Street (formalising current bus replacement stops with improved road line marking): Traffic Resolution granted; Masterton District Council to line mark these Bus Replacing Trains (BRT) bus stops.
- 12. Woodside Station: Improvements to the bus replacement bus stops for Woodside Station will be incorporated into our BRT improvement programme, subject to Long Term Plan funding.

Map of improved bus replacement stop locations



#### **Update on performance**

13. A PowerPoint presentation on Wairarapa public transport performance will be presented to the Committee at this meeting. A copy is attached as **Attachment 1**.

#### Ngā āpitihanga Attachment

Number	Title	
1	Metlink Public Transport Performance – Presentation	

#### Ngā kaiwaitohu Signatories

Writers	David Mawson - Manager Rail Network Delivery	
	Nathan Briggs – Manager Rail Assets	
	Hamish Burns – Manager, Bus & Ferry Assets	
Approvers	Fiona Abbott – Senior Manager Assets and Infrastructure, Metlink	
	Samantha Gain – Group Manager, Metlink	

#### He whakarāpopoto i ngā huritaonga Summary of considerations

#### Fit with Council's roles or Committee's terms of reference

The purpose of the Committee is to consider areas and matters of strategic importance to the Wairarapa. This is an information report on public transport matters in the Wairarapa.

#### Contribution to Annual Plan / Long term Plan / Other key strategies and policies

This report provides an update on the delivery of public transport activities in the Wairarapa. Delivering public transport is a key activity in the Long-term Plan.

#### Internal consultation

No other departments were consulted in preparing this report.

Risks and impacts: legal / health and safety etc.

There are no risks arising from this report.

## PUBLIC TRANSPORT PERFORMANCE - APRIL

**FOCUS ON WAIRARAPA** 

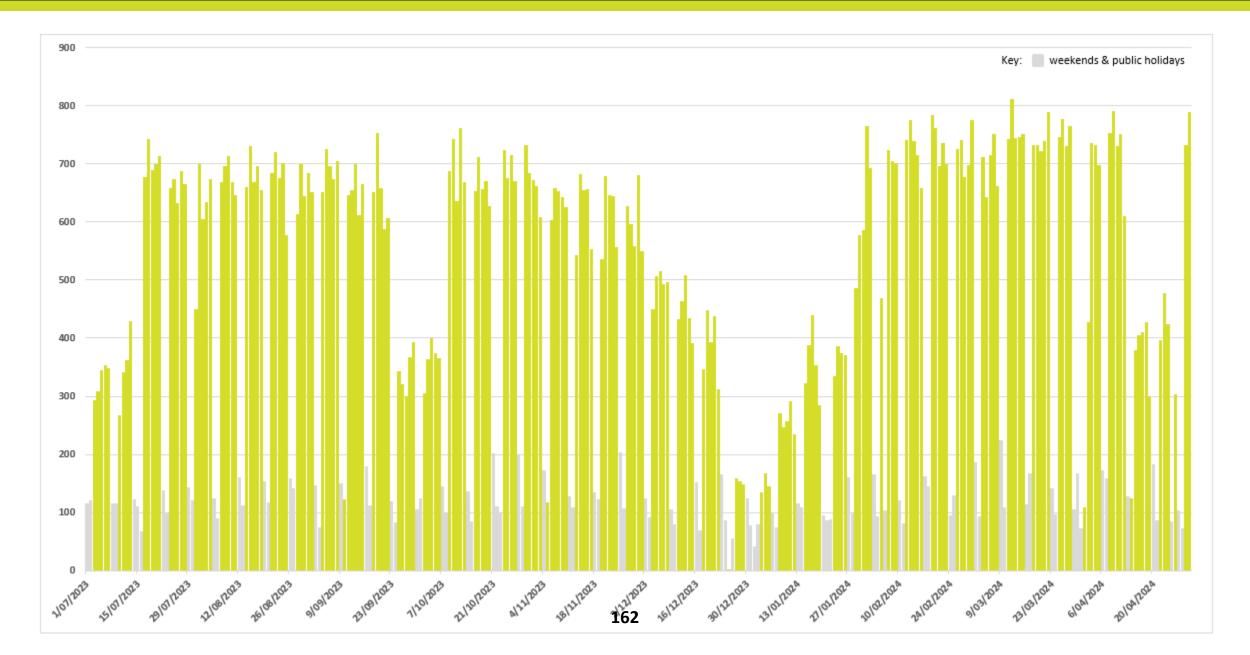
#### WAIRARAPA COMMITTEE

28 May 2024 Samantha Gain, Group Manager Metlink

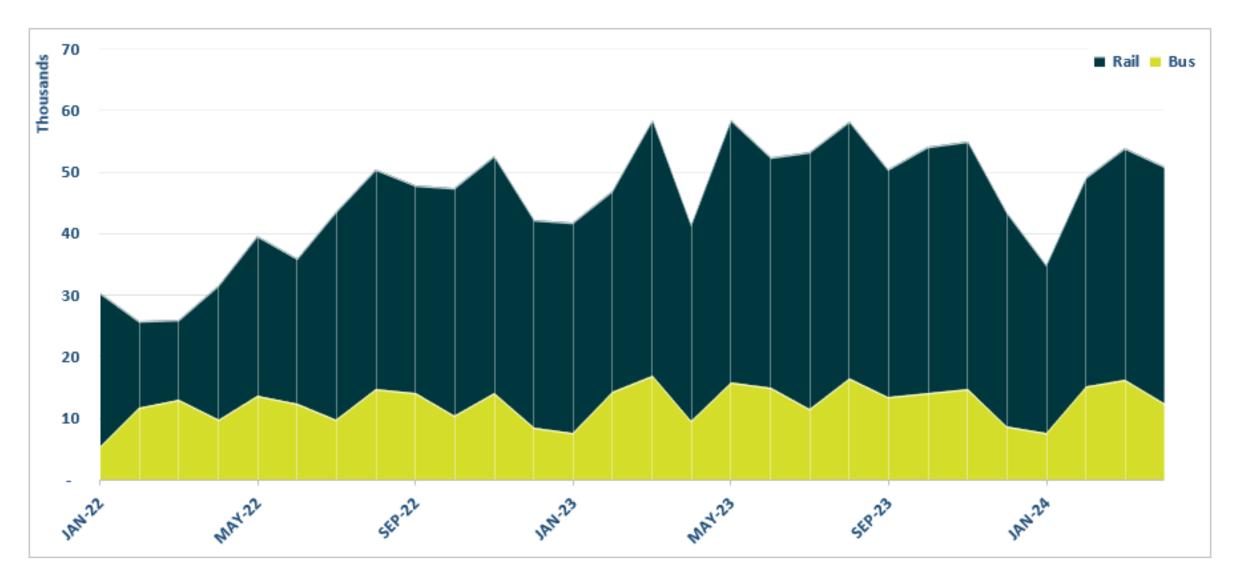




# Wairarapa bus patronage – Boardings (day)



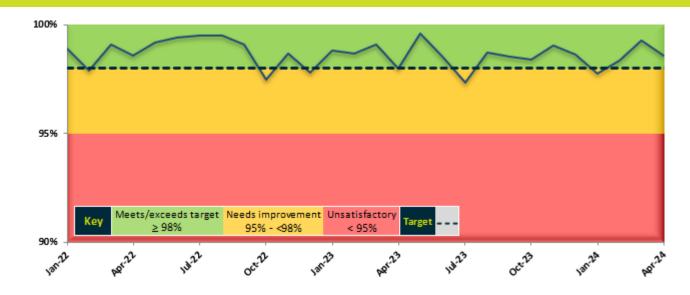
## Wairarapa rail/bus patronage — Boardings (MT4H) nt 1 to Report 24.228



### Wairarapa bus reliability & punctuality

The bus reliability measure shows the percentage of scheduled services that actually ran, as tracked by Snapper systems.

April 2024 bus reliability was **98.6%** (meets/exceeds target) mainly reflecting stabilised driver numbers and retention.



Bus punctuality is measured as the percentage of scheduled services that depart from origin, leaving between 1 minute early and 5 minutes late.

Roadworks on SH53 and in Masterton have resulted in detours delaying services and impacting punctuality.

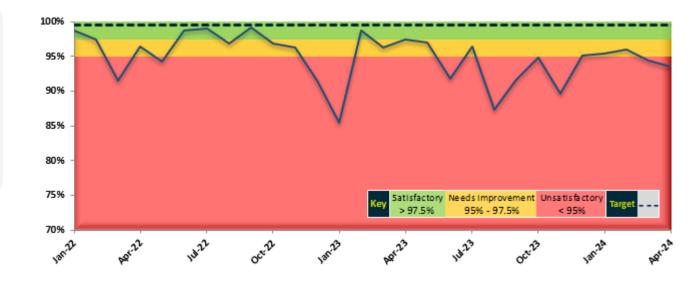
April bus punctuality was **86.2%** (unsatisfactory).



### Wairarapa rail reliability & punctuality

The rail reliability measure shows the percentage of scheduled services that depart from the origin and key stations no earlier than 30 seconds before the scheduled time, meet the consist size for the scheduled service, and stop at all timetabled stations. It does not factor bus replacement services.

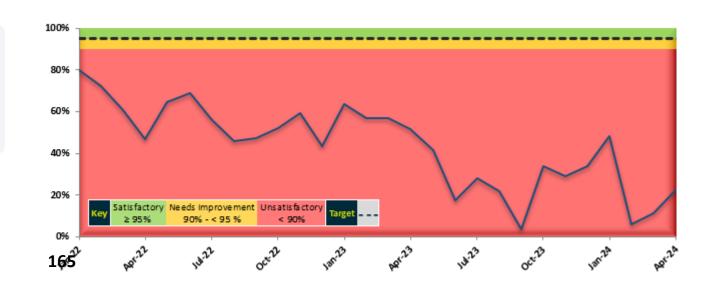
April rail reliability was 93.5% (unsatisfactory).



The rail punctuality measure records the percentage of services arriving at key interchange stations and final destination within five minutes of the scheduled time.

It does not factor bus replacement services.

April rail punctuality was 22.8% (unsatisfactory).



# Wairarapa complaints

