ORDINARY MEETING OF PŪRORO ĀMUA - PLANNING AND ENVIRONMENT COMMITTEE AGENDA

Time: **9:30am**
Date: **Wednesday, 27 October 2021**
Venue: **Virtual meeting**

MEMBERSHIP

Mayor Foster
Deputy Mayor Free
Councillor Calvert
Councillor Condie
Councillor Day
Councillor Fitzsimons
Councillor Foon
Liz Kelly
Councillor Matthews
Councillor O'Neill
Councillor Pannett (Chair)
Councillor Paul (Deputy Chair)
Councillor Rush
Councillor Woolf
Councillor Young

Have your say!
You can make a short presentation to the Councillors at this meeting. Please let us know by noon the working day before the meeting. You can do this either by phoning 04-803-8334, emailing public.participation@wcc.govt.nz or writing to Democracy Services, Wellington City Council, PO Box 2199, Wellington, giving your name, phone number, and the issue you would like to talk about. All Council and committee meetings are livestreamed on our YouTube page. This includes any public participation at the meeting.

AREA OF FOCUS

The Pūroro Āmua | Planning and Environment Committee has the following responsibilities:

- RMA matters
- Urban Planning, District Plan
- Built environment
- Natural environment and biodiversity
- Future Development Strategy, Spatial Plans and Housing Supply
- Climate Change Response and Resilience
- Heritage
- Transport Strategy and Planning, including significant traffic resolutions
- Parking policy
- Submissions to Government or other local authorities
- Regulatory activity and compliance
- Planning and approval of business cases for Let's Get Wellington Moving, associated
- traffic resolutions and other non-financial statutory powers necessary for progressing
- the business cases (such as decisions under the Local Government Act 1974)
- Implementing and monitoring delivery of the affordable housing strategy

The Committee has the responsibility to discuss and approve a forward agenda.

To read the full delegations of this committee, please visit wellington.govt.nz/meetings.

Quorum: 9 members

TABLE OF CONTENTS
27 OCTOBER 2021

1. Meeting Conduct

1.1 Karakia

The Chairperson will open the meeting with a karakia.

Whakataka te hau ki te uru,	Cease oh winds of the west
Whakataka te hau ki te tonga.	and of the south
Kia mākinakina ki uta,	Let the bracing breezes flow,
Kia mātaratara ki tai.	over the land and the sea.
E hī ake ana te atākura.	Let the red-tipped dawn come
He tio, he huka, he hauhū.	with a sharpened edge, a touch of frost,
Tihei Mauri Ora!	a promise of a glorious day

At the appropriate time, the following karakia will be read to close the meeting.

Unuhia, unuhia, unuhia ki te uru tapu nui	Draw on, draw on
Kia wātea, kia māmā, te ngākau, te tinana, te wairua	Draw on the supreme sacredness To clear, to free the heart, the body
I te ara takatū	and the spirit of mankind
Koia rā e Rongo, whakairia ake ki runga	Oh Rongo, above (symbol of peace)
Kia wātea, kia wātea	Let this all be done in unity
Āe rā, kua wātea!	

1.2 Apologies

The Chairperson invites notice from members of apologies, including apologies for lateness and early departure from the meeting, where leave of absence has not previously been granted.

1.3 Conflict of Interest Declarations

Members are reminded of the need to be vigilant to stand aside from decision making when a conflict arises between their role as a member and any private or other external interest they might have.

1.4 Confirmation of Minutes

The minutes of the meeting held on 20 October 2021 will be put to the Pūroro Āmua | Planning and Environment Committee for confirmation.

1.5 Items not on the Agenda

The Chairperson will give notice of items not on the agenda as follows.

Matters Requiring Urgent Attention as Determined by Resolution of the Pūroro Āmua | Planning and Environment Committee.

The Chairperson shall state to the meeting:

1. The reason why the item is not on the agenda; and

2. The reason why discussion of the item cannot be delayed until a subsequent meeting.

The item may be allowed onto the agenda by resolution of the Pūroro Āmua | Planning and Environment Committee.

Minor Matters relating to the General Business of the Pūroro Āmua | Planning and Environment Committee.

The Chairperson shall state to the meeting that the item will be discussed, but no resolution, decision, or recommendation may be made in respect of the item except to refer it to a subsequent meeting of the Pūroro Āmua | Planning and Environment Committee for further discussion.

1.6 Public Participation

A maximum of 60 minutes is set aside for public participation at the commencement of any meeting of the Council or committee that is open to the public. Under Standing Order 31.2 a written, oral or electronic application to address the meeting setting forth the subject, is required to be lodged with the Chief Executive by 12.00 noon of the working day prior to the meeting concerned, and subsequently approved by the Chairperson.

Requests for public participation can be sent by email to public.participation@wcc.govt.nz, by post to Democracy Services, Wellington City Council, PO Box 2199, Wellington, or by phone at 04 803 8334, giving the requester's name, phone number and the issue to be raised.

2. General Business

LET'S GET WELLINGTON MOVING - GOLDEN MILE SINGLE STAGE BUSINESS CASE

Kōrero taunaki

Summary of considerations

Purpose

1. This report to Pūroro Āmua - Planning and Environment Committee.

Strategic alignment with community wellbeing outcomes and priority areas

	Aligns with the following strategies and priority areas: ☒ Sustainable, natural eco city ☒ People friendly, compact, safe and accessible capital city ☒ Innovative, inclusive and creative city ☒ Dynamic and sustainable economy
Strategic alignment with priority objective areas from Long-term Plan 2021–2031	☒ Functioning, resilient and reliable three waters infrastructure ☒ Affordable, resilient and safe place to live ☒ Safe, resilient and reliable core transport infrastructure network ☒ Fit-for-purpose community, creative and cultural spaces ☒ Accelerating zero-carbon and waste-free transition ☒ Strong partnerships with mana whenua
Relevant Previous decisions	Let's Get Wellington Moving Programme Business Case (PBC).
Significance	The decision is rated high significance in accordance with schedule 1 of the Council's Significance and Engagement Policy. Outline the criteria that apply as set out in the Council's Significance and Engagement Policy. This is a mandatory consideration, regardless of the level of significance. Democracy Services will peer review the level of significance.

Financial considerations

☐ Nil	☒ Budgetary provision in Annual Plan / Long-term Plan	☒ Unbudgeted $36.1M

Risk

☐ Low	☒ Medium	☐ High	☐ Extreme

Author	Moana Mackey, Chief Advisor to Chief Planning Officer and Chief Infrastructure Officer
Authoriser	Liam Hodgetts, Chief Planning Officer

Taunakitanga

Officers' Recommendations

Officers recommend the following motion

That Pūroro Āmua - Planning and Environment Committee:

1) Receive the information.
2) Approve the Let's Get Wellington Moving – Golden Mile, Single Stage Business Case.
3) Note that Wellington City Council's partner share of costs (49% WCC, 51% Waka Kotahi) to undertake the work in the next phase (Pre-Implementation) has been allowed for in the 2021-2031 Long Term Plan (LTP) as follows:

   2021/22 - $882,000
   2022/23 - $1,911,000
   Total - $2,793,000

Whakarāpopoto

Executive Summary

1. This report asks the Pūroro Āmua - Planning and Environment Committee to approve the Let's Get Wellington Moving (LGWM) – Golden Mile, Single Stage Business Case (SSBC).
2. Partner approval from both Wellington City Council (WCC) and Greater Wellington Regional Council (GWRC) is required before seeking approval from the Waka Kotahi (WK) Board.
3. The approval of the SSBC will release the remaining funding for the next stage of the project which is for detailed design also referred to as pre-implementation funding. The detailed design phase will take us through to September 2022 and involve further engagement with the occupants of the Golden Mile Precinct (including its side streets) and the public. Once we have a detailed design completed, implementation funding will be requested from WCC, GWRC and WK in late 2022, subject to construction phase Workstream Funding Agreement (yet to be developed by LGWM).
4. The Golden Mile (GM) project is part of the Let's Get Wellington Moving (LGWM) Three-Year Programme. This SSBC assesses the case for investment and the preferred way forward for investing in the Golden Mile's transport, active modes and public realm improvements. It presents the *case for change*, including the option development and assessment process that was applied to identify a preferred option. It also presents the cost estimation and economic appraisal for this option
5. The Golden Mile project aligns with LGWM's overarching vision of a great harbour city, accessible to all, with attractive places, shared streets and efficient local and regional journeys. The vision for the Golden Mile Project is "Connecting people across the central

city with a reliable public transport system that is in balance with an attractive pedestrian environment".

6. The GM project: is a key foundation project at the heart of the LGWM programme; it will significantly improve safety, comfort and amenity for people who live, work or play in the Wellington City CBD; will have significant benefits for people travelling to, through and around the central city on foot, by bike and by bus; and will demonstrate the type of transformative change that people can expect to see rolled out across the key transport corridors in Wellington City.
7. Development of the SSBC started in early 2020. The work during this phase included the development of the strategic case, a long list of options which were refined to a short-list, public engagement on the short-list and a Multi Criteria Assessment (MCA) on those options to identify a preferred option for the Golden Mile
8. In April 2021, the LGWM endorsed Option 3 "Transform" as the preferred option. This was announced publicly in June 2021. The combined public transport, active modes and public realm benefits were then estimated between $87M to $505M. The reason for this wide range of benefits was related to pedestrian realm benefits representing low confidence to high confidence range. The estimated cost range of this preferred option based on the high-level design concept was between $52M and $79M thereby having an indicative Benefit Cost Ratio (BCR) between 1.2 and 11. The other two options returned a BCR range of 1.6-4.2 (Option 1) and 1.5-12 (Option 2) respectively.
9. The preliminary design of the preferred option has since been completed. This has led to a better understanding of technical design requirements, design standards, risks, impacts which then led to further refinement of cost estimates and project benefits. The revised cost range has increased and is now estimated between $65M and $105M. The main elements led to this cost increase are increased requirements for streetlighting replacement (to accommodate cycleway), increased drainage requirements to manage surface runoff and increased allowance for risk associated with utilities. The BCR range for the preferred option is now estimated to be between 3.9 and 5.9.
10. The revised implementation cost range estimate exceeds the allowance made in the current LTP and WK NLTP and a more complex approval pathway or decisions to descope this or other projects to fit within overall affordability constraints may be required before seeking a decision on the implementation phase funding.
11. On approval of the SSBC, we will initiate the detailed design phase to better understand risks associated with underground services, construction methodology and sequencing, business impacts, materials selection & availability. We are proposing to get contractor on board early in the next phase using an Early Contractor Involvement (ECI) procurement pathway to mitigate these risks and establish construction costs. This will also help confirm a construction methodology long before construction start with a view to minimising disruption to the occupants and daily users of the Golden Mile.
12. Stakeholder engagement will be significant in the next phase as we seek to address occupants' access and service delivery concerns while designing this space to achieve our vision of connecting people across the central city with a reliable transport system that is in balance with an attractive pedestrian environment.

13. The partnership agreement for the programme requires that all business cases gain partner approval. Approval of the recommendations of this report will meet this requirement.

Takenga mai

Background

14. LGWM is a joint initiative between Wellington WCC, GWRC and WK, together with Mana Whenua partners Taranaki Whānui ki Te Upoko o Te Ika and Ngāti Toa
15. The focus of the LGWM programme is from Ngauranga Gorge to Miramar including the central city, the state highway, access to the port, and connections to Wellington Hospital and the airport. A number of core multi-modal corridors connecting the central city with suburbs to the north, south, east, and west are also covered by parts of the programme. This area has an important role for both local and regional journeys
16. A draft LGWM programme business case was completed in 2018, which identified a Recommended Programme of Investment (RPI)
17. Discussions with central government about funding, financing, and staging led to the announcement of an Indicative Package (IP) with central government funding in May 2019
18. On 26 June 2019, Council endorsed the LGWM long term vision and RPI, welcomed the government funding announcement as part of the IP, and agreed to move to the next stage of investigations (Council 26 June 2019). GWRC similarly endorsed the LGWM vision in June and the WK Board subsequently endorsed the programme's next steps
19. On December 11 2019, Council (SPC) agreed the funding and partnering approach for the next phase (Strategy and Policy Committee 11 December 2019). GWRC and Waka Kotahi similarly endorsed the funding and partner agreement
20. Since then, the next business case stages for the various packages have been significantly progressed, including a draft Indicative Business Case for both the Mass Rapid Transit and Strategic Highway Improvements packages.
21. The LGWM programme includes substantial investment in public transport, walking, cycling and amenity/place making to provide enhanced travel choice with a strong focus on the central city and effective and efficient connections between the central city and key sub-urban centres
22. The Golden Mile project is one of the early delivery projects within the LGWM Three Year Programme with a vision to connect people across central city with reliable transport system in balance with attractive pedestrian environment. The benefits sought are for faster and reliable bus system, improved pedestrian safety and convenience as well as increased amenity value

Strategic Case

23. The Golden Mile project aligns with LGWM's overarching vision of a great harbour city, accessible to all, with attractive places, shared streets and efficient local and regional journeys. The vision for the Golden Mile Project is "Connecting people across the central city with a reliable public transport system that is in balance with an attractive pedestrian environment".
24. The Golden Mile investment objectives that this project is seeking to achieve are to:

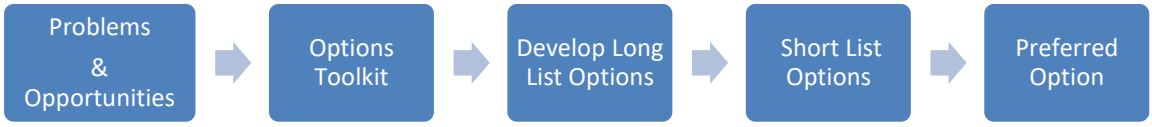
a. Improve bus travel time and reliability
b. Improve convenience and comfort of people at bus stops
c. Reduce number of crashes
d. Improve capacity for pedestrians
e. Improve place amenity and vibrancy

25. With these objectives in mind, the project seeks to address the infrastructure problems that currently slow buses down and make travel by bus less reliable than it could be on the Golden Mile. Addressing these issues will benefit bus users across the wider network. The project also seeks make walking, biking and spending time on the Golden Mile more attractive.

Kōwhiringa

Options

26. A five-step approach was used to develop options which would meet the investment objectives.



27. The option development process started by identifying a long list of potential “mitigation / intervention” scenarios for each section of the Golden Mile. These scenarios explored different combinations of treatments that could respond to the key public transport, pedestrian and public realm problems identified for the Golden Mile
28. Three shortlist options (Streamline, Prioritise, Transform) were then derived from the above work and high-level benefits and costs analysis was undertaken to compare the shortlisted options. All three options delivered benefits for bus users, active modes and streetscape improvements to varying degrees. All three shortlisted options returned a positive BCR and were subsequently approved for public engagement by LGWM Board and three partners. These three shortlisted options are explained in Attachment 1.
29. The three shortlisted options were released for public consultation in June 2020. Overall, there was strong support from submitters for significant change proposed under the transformational Option 3 “Transform”. However, many local businesses and retailers along the Golden Mile did not support any change to status quo primarily due to their concern that any changes that remove private motor vehicles from Golden Mile will be detrimental to their business.
30. To better understand the impact of proposed changes on businesses, LGWM commissioned an independent retail assessment study which concluded that the proposed improvement will provide overall positive benefits to businesses.
31. The short-listed options for each section of the Golden Mile were assessed through a Multi Criteria Assessment. This process involves several subject matter experts (including partner representatives) assessing each option for each section of the Golden Mile against various assessment criteria including:

    i. How well an option meets the investment objectives;

ii. What are the relative impacts and effects of each option;

iii. Deliverability and ongoing operations.

32. A key feature of the assessment process was the consideration of community feedback received via the public engagement process, and the independent retail assessment.

33. The "Transform" option was identified as the best performing option which would deliver significant public transport, active modes and streetscape improvements. This preferred option was subsequently endorsed by LGWM Board (April 2021) and announced in June 2021.

Kōrerorero
Discussion

Preferred option Economics

34. A breakdown summary of the benefits associated with delivering the preferred option "Transform" is as follows:

4. Benefits	Present value ($M)
5. Pedestrian Realm	$247
6. Health	$48
7. Pedestrian Crash reduction	$37
8. Public Transport Reliability	$27
9. Pedestrian Travel Time	$25
10. Public Transport Travel Time	$17
11. Emission Reduction	$17
12. Car Travel Time (Disbenefit)	-$20
13. Net benefits	**$398**
14. Expected Cost (P50)	**$87.5**
15. BCR	**4.6**

35. Public transport benefits are expected to be generated by the public transport travel time and reliaility improvements. The Golden Mile is the core public transport corridor for most of the bus services that travel through the central city from adjoining suburbs, therefore, the travel time and reliability benefits will provide benefits to wider public transport network.

36. Significant benefits are expected to be generated by the combined pedestrian travel time, crash reduction and pedestrian realm benefits. Analysis shows that most of these benefits will occur on Lambton Quay, Willis Street and Courtenay Place.

37. The preferred option is also expected to generate significant health benefits as a result of mode shift from cars to public transport. In total, the preferred option is expected to generate $48M (net present value) in health benefits.

38. Whilst there is a disbenefit to car travel time, this is far outweighed by the other benefits associated with improved public transport, health and pedestrian benefits.
39. Overall, the preferred option returns a positive BCR which provides partners with confidence to move to deliver it as soon as possible.

Preliminary Design of Preferred Option

40. A preliminary design of the preferred option was undertaken to: estimate likely costs and benefits; investigate linkages/dependencies with other projects; understand high level utilities interaction; define access hierarchy/strategy and identify and assess project risks for further investigation into the next phase of detailed design. The proposed road layout and associated high level plans are included in the SSBC and these will be further refined and developed in the next stage. This will be done in collaboration with local businesses, key stakeholders and general public.
41. To guide the design of the preferred option, the project team has developed a Design Philosophy Statement (DPS) that sets out standards, guidelines and assumptions to guide the design of the preferred option.
42. A *Movement and Access Strategy* has been prepared to define the access and movement arrangement for all users on Golden Mile. The key objectives of this strategy are:
    - Confirm user groups
    - Confirm movement and access hierarchy, principles and plans applied to user groups
43. A *Movement and Access Hierarchy* has been developed that reflects the investment objectives and reinforces pedestrians and public transport as the highest priority user groups. Access for cyclists, service and commercial vehicles will be provided in a way not to adversely affect the pedestrians and public transport operations.
44. Mana Whenua has provided a set of draft cultural design values to help guide the design in the next phase of the project. This will be done by working collaboratively with Mana Whenua throughout the next design phase.
45. The key design features of preferred Option “Transform” are:

    - Removal of most general traffic from the Golden Mile with the road space reallocated to pedestrians, cyclists and public transport improvements
    - One continuous bus lane in each direction along the entire length of Golden Mile
    - The bus stops to be reduced to five bus stop pairs on Golden Mile with some bus stops indented into footpath to allow buses to pass each other at Lambton Quay and Courtenay Place. The bus stops on Willis Street and Manners Malls will be in-line bus stops due to geometric constraints
    - The Golden Mile ends of Blair, Allen, Cuba, Mercer, Balance, Stout, Waring Taylor, Johnston, Brandon and Panama streets will be closed to private motor vehicles to improve pedestrian convenience, safety, streetscaping opportunities and public transport reliability (by reducing interaction with cars turning on and off-side streets).
    - Tory Street is open to North/South through traffic movements only with turning movements to/from Courtenay Place restricted.
    - Dedicated space for cyclists on Courtenay Place and Lambton Quay (north of Panama Street). Willis street will allow cyclist access northbound as a secondary cycling route. These sections are highly pedestrianised, and the design needs to ensure the safety and access of pedestrians and public transport takes priority.

- Loading zones and taxi stands to be relocated to side streets. To accommodate large service vehicles, keeping some loading zones on Golden Mile with time restricted access arrangements will be investigated.
- On-street car parking on the Golden Mile removed to allow active modes and streetscape improvements. The on-street car parking on side roads will also be reduced to accommodate loading zones, mobility parks and taxi stands. The exact parking loss will be worked through in the next design phase.
- Emergency vehicle access to be allowed 24/7
- Streetscape improvements on Lambton Quay, Mercer Street and Courtenay Place to improve amenity and vibrancy

46. The next design phase will further develop the *Design Philosophy Statement* and refine the design in collaboration with partners, public and key stakeholders.

47. There are number of heritage buildings, sites and objects located along the Golden Mile and the proposed consenting strategy recommends the project team to do heritage, archaeological and cultural heritage assessments in the next design phase to ensure the improvements enhance the character of the area with no adverse impacts.

Dependencies, Assumptions & Impacts of Preferred Option

48. Assumption - The following key assumptions informed the development of the Golden Mile SSBC:

    a. Mass Rapid Transit (MRT) is not located on Golden Mile corridor. However, design integration with MRT is planned at Courtenay Place depending on subsequent MRT alignment.

    b. Public transport patronage, growth, employment will return to pre-covid levels and projections by 2036.

49. Dependencies:

    a. A second public transport spine will be developed to accommodate future growth in public transport demand through the CBD and will complement the Golden Mile public transport spine. This second spine is the MRT route under investigation by LGWM.

    b. There is a finite capacity on the Golden Mile to accommodate new bus services due to geometric constraints of Willis Street and Manners Mall. Therefore, bus volumes are “capped” at 100 buses/hr in each direction. Any additional increase beyond the 100 buses/hr/direction will be accommodated on the second public transport spine.

    c. Cycle connections to the proposed cycling facilities on the Golden Mile will be provided by the City Streets programme which will investigate primary cycling routes on Featherston Street, Victoria Street and Kent/Cambridge Terrace among other routes.

    d. The proposed changes to bus stop locations may require rescheduling of bus services. This rescheduling work will be done by GWRC and Metlink as part of ongoing timetable review processes. The bus stop location changes also provide an important opportunity to improve the user experience and waiting experience at new bus stops as part of the detailed design phase.

50. Transport Impacts

a. Transport modelling of "worst case" and "optimistic" scenarios was undertaken to understand the potential traffic effects of the preferred option.

b. A worst-case scenario means no change in travel behaviour and traffic demand.

c. An optimistic scenario where some travel behaviour change occurs in response to proposed changes to Golden Mile.

The modelling work concluded that even for the worst case scenario, the transport network could accommodate the rerouted traffic and the effect is manageable. Some traffic signal optimisation is needed on the rerouted routes and this will be done in the next design phase.

51. Traffic Controls

a. To regulate the access on the Golden Mile, the project team developed a traffic control strategy to investigate several methods to regulate access on Golden Mile. This strategy concluded that a hybrid approach involving a combination of road traffic controls and permitting system is likely to most effective. This will be further explored in the next phase and once confirmed with partners, the traffic resolution process will be followed for implementation.

Integration with Other Projects

52. The work done to date on the SSBC is integrated with the City Streets and Mass Rapid Transit (MRT) projects with further work planned in the next design phase with respect to:

a. integration of proposed cycle links on Golden Mile with City Streets Cycle network; and

b. integration with MRT at Taranaki/Courtenay/ Manners/Dixon intersection with respect to intersection design;

c. integration with transitional cycleways project at Bowen/Whitmore St and Kent/Cambridge Terrace.

53. To accomodate future growth in bus services beyond Golden Mile capacity, LGWM will investigate how a second PT spine could be implemented on the waterfront Quays ahead of, but consistent with, the longer term MRT infrastructure. GWRC and Metlink have completed some initial work, using customer research focus groups, to understand bus user preferences and to inform bus service design concepts for potential implementation along the second spine within three to five years.

54. The WCC Bike Plan indicates Courtenay Place as a primary cycle route with Willis Street and Lambton Quay as secondary routes. Given the primary objectives of the Golden Mile project are focussed on public transport and walking improvements, any cycling infrastructure that is designed and implemented will prioritise those other modes and likely encourage slower speeds.

55. The Poneke Promise Project proposes to make changes to Courtenay Place and surrounding areas of Te Aro Pa, Te Aro Park, Allen and Blair Streets to improve public safety. Due to the overlap with Golden Mile project, the project team will work collaboratively with this project to integrate design and public engagement opportunities.

56. Gehl Architects has completed a Public Space Public Life study, funded from the City Streets package. This has valuable insights, principles and actions to improve the quality and function of public spaces in the city centre. The Golden Mile project and wider LGWM programme will work with WCC to apply the relevant recommendations to the Golden Mile. The study also measured and analysed how people are currently using and moving through the space, creating a data baseline for the project to inform design decisions in the next stage and to monitor and measure the effects of the project on improving liveability within the project area.

57. WCC renewals of existing paving areas- The Golden Mile project scope only includes the paving of new areas as the renewal of existing paved areas on Golden Mile comes under WCC renewal works as per WK guidelines. To ensure a consistent paving approach across all paved areas on Golden Mile and to ensure pavers approaching end of life are replace, WCC is investigating opportunities to advance renewal of existing paving areas across 2021/24 and 2024/27 LTPs to be integrated and completed as part of the Golden Mile construction project. This approach provides best value for money for customers and removes the risks associated with existing clay pavers as reported by customers (slips, trips etc). The new pavers (type yet to be agreed with WCC in next design phase) will have longer paving life (around 25years) thereby providing best whole of life solution.

58. WCC is currently developing a Green Network Plan which is a key action out of the Planning for Growth Spatial Plan and to addressing the climate and ecological emergency declared in 2019. The Green Network Plan and proposed Implementation Framework focus on how to address the current deficit of greening in the central city as well as how to provide additional green infrastructure and public amenity as the central city densifies over the next 30 years. Increasing the level of greening in the public realm and number of trees, including street trees, is going to be critical to achieve this plan. This plan, if adopted by WCCs Planning and Environment committee on 27 October 2021, will inform the next stage of design of the Golden mile project.

59. WCC have commissioned a research report on a Fossil Fuel Free Central City (FFFCC) which will provide advice on how to build on the work of LGWM in prioritising active and Public Transport modes across the central city. The FFFCC report is due to be discussed at WCCs Planning and Environment committee on 10 November 2021.

Whai whakaaro ki ngā whakataunga

Considerations for decision-making

Alignment with Council's strategies and policies

60. The preferred option (Option 3 "Transform") alignment with Wellington City Council's strategies is as follows:

Strategies and Policies	Alignment
Our City Tomorrow: Spatial Plan for Wellington City	Strong
Wellington Towards 2040: Smart Capital	Strong

Te Atakura First to Zero: Wellington City's Zero Carbon Implementation Plan 2020 – 2030	Strong
Wellington City Council (WCC) Long Term Plan 2021-31	Strong
WCC Walking Policy 2008	Strong
WCC Parking Policy 2020	Strong
Pōneke Promise	Strong
Wellington RLTP 2021	Strong
Wellington Regional PT Plan 2021	Strong
Regional Climate Emergency Declaration/ Action Plan	Strong

Engagement and Consultation

Reviews and approvals

61. The Golden Mile SSBC has been endorsed by the LGWM Board [subject to WCC confirmation, the Pre-implementation WFA (Workstream Funding Approval), as attached, has been endorsed for submission to WCC and Waka Kotahi for approval].

62. Standard practice for any business case of this size within WK is that it undergoes an internal investment quality assurance (IQA) review. The IQA process has been completed that supported this SSBC.

63. The SSBC has also been independently peer reviewed and all relevant issues have been resolved. The peer reviewer supported the SSBC document.

64. The SSBC has also gone through independent transport modelling and economics peer review and their review findings support the SSBC modelling and economics.

65. The Preliminary design has also been independently safety audited and audit findings been reviewed and accepted by consultant, LGWM and WCC safety engineer.

Community and Stakeholder feedback

66. The three shortlisted options were released for public consultation from June to August 2020. We asked Wellingtonians to let us know what that they liked or didn't like about each concept and why. We also asked people to tell us which concept they preferred for the different sections of the Golden Mile, as we understand that each street that makes up the Golden Mile is different, and a concept that might work for one street, may not for another. We also wanted to know people's thoughts on providing spaces for people on bikes and scooters, allowing certain vehicles (such as taxis, delivery and maintenance vehicles) access to the Golden Mile and how they'd like to see the space at the end of closed side streets used.

67. Overall, about 2000 people and organisations commented on the proposed concepts. Most of the comments received expressed a preference for Concept 3 "Transform." The majority also supported providing cycling facilities and retaining loading bays or taxis stands on the Golden Mile (or were supportive of allowing service vehicles to use the Golden Mile at certain times of the day).

68. However, the retail and hospitality business sectors were concerned that certain aspects of the concepts (e.g. removal of on-street parking, removing Private Motor Vehicle access, relocation of loading zones), would impact negatively on retail and business activity. In response to these concerns, the project team commissioned retail impact assessment to determine the effects, benefits and risks of shortlisted options on retailers and businesses.

69. A key conclusion of the retail impact assessment was the Option 3 "Transform" would generate net benefits in the form of increased footfall leading to increased sales and revenue. In contrast, both options 1 and 2 would generate less benefits for businesses and retailers on the Golden Mile.

Implications for Māori

70. LGWM has established mana whenua partnership working group and Iwi membership on the Governance Reference Group to incorporate mana whenua perspectives in the programme outcomes and support broader Iwi engagement.

71. Iwi representatives have been involved in the Golden Mile Multi Criteria Assessment options assessment process and has supported the preferred option, Option 3 "Transform".

72. The iwi representatives have provided a set of draft cultural design values and principles to help guide the development of the project. These values, along with, Heritage landscape assessment and archaeology assessment will guide the development of the preferred option design in the next phase of the project. This design will be developed in partnership with the mana whenua working group.

Financial implications

Preferred Option Cost Estimate

73. Further refinement of the design through the finalisation of the SSBC has resulted in an updated cost estimate.

74. The table below shows the Base and Expected (P50) cost estimate for the preferred option:

Cost source	Revised (September 2021) Expected Project Cost	Previous (June 2020) Expected Project Cost
Pre-Implementation Phase	**$7,900,000**	**$5,900,000**
Main Consultancy/Contract including comms and engagement	$4,900,000	$3,900,000
Internal Managed Costs Allocation (reviews, Audits, advertising, cultural assessment, ad-hoc fees)	$2,000,000	$2,050,000
Early Contractor Involvement (stage 1 contract docs, tendering, contractor staff time, cost agreement, final	$1,000,000	

Cost source	Revised (September 2021) Expected Project Cost	Previous (June 2020) Expected Project Cost
proposal)		
Implementation Phase	**$57,750,000**	**$46,260,000**
MSQA Consultancy supervision	$3,600,000	$3,100,000
Managed Costs (consent monitoring fee, audits, reviews, comms FTE, advertising costs)	$5,250,000	$2,050,000
Physical works Cost Estimate	$48,900,000	$41,110,000
Total Project Base Cost	**$65,650,000**	**$52,160,000**
Total Project Contingency (30%)	**$19,500,000**	**$15,648,000**
Physical Works Contract-Allowance for Contractor KRA Bonus Payments	$2,400,000*	
Total Expected Project Cost (P50)	**$87,550,000**	**$67,808,000**

**please note that these costs are not included in the draft SSBC document as it was added late by LGWM. The final approved SSBC will be updated include these costs*

75. The key elements that led to this cost increase (P50) from $67.8M to $87.55M are listed and quantified below:

Key Elements	Concept stage estimate (June 2020)	Preliminary Design Stage Estimate (Sep 2021)	Reason for cost increase
Pre-Imp Phase	$3.9M	$4.9M	Based on final consultant fee. Original fee based on standard estimate (7.5%)
Pre-Imp Phase-Allowance for Early Contractor Involvement (ECI)	$0.0	$1.0M	To allow procurement and involvement of physical works contractor to work collaboratively with the pre-imp consultant to refine the design, develop construction methodology and minimise the construction and disruption risk associated with physical works
MSQA Services	$3.1M	$3.6M	Updated fee allows for three years construction supervision to accommodate risk of delay

Construction Phase Managed Costs	$2M	$5.25M	Revised costs now allow for one comms FTE resource plus advertising costs@750k/year
Construction Works	$41.1M	$48.9M	Original cost based on concept design (5%) across three options. Revised cost is based on preliminary design of preferred option (~20%). Key items that led to cost increase are: Streetlighting- $4.4M increase, out of which $2.8M relates to removal and relocation of median streetlights to accommodate cycleway connection through Courtenay place. Drainage – Increase of $2M to allow more sumps, manholes and length of strip drains to manage stormwater flow on sealed surface and on new footpath Bus stops- One architectural bus stop- $0.4M Temporary bus stops (including seating, lighting) on re-routed streets -$0.45M Paving rates-The rate for new footpath pavers increased from $280/m2 to $300/m2 to reflect recent market costs.
Extraordinary Construction Cost	$0.0	$1.0M	Allowance for artistic and cultural inputs to project to reflect mana whenua design values and reflect cultural heritage
Physical works contractor- KRA Bonus Payment	$0.0	$2.4M	In discussions with LGWM Procurement Advisor, an allowance has been made of a provisional sum of $2.4M for "Contractor Bonus Payments" to allow broader social outcomes from our physical works contractor. Alliance type contracts typically use a KRA (Key Result Area) bonus pool payment of between 2-3% of engineer estimate. If we want to signal a step change in contractor performance, we need to allow for these payments to ensure contractor reflects the right behaviours to meet these social outcomes when delivering the physical works

76. As per the WK Cost estimation manual, the revised base, expected (P50) and 95th percentile (P95) estimated cost ranges are as follows:

	Base	Expected (P50)	95th percentile (P95)
Preferred Option	$65.65M	$87.55M	$105.06M

77. The WCC has included the costs for the next phase (pre-implementation phase) in their LTP funding, but not for the currently indicated implementation phase cost range. Costs included in the current LTP are funded using existing rating tools.

78. WK is expected to fund the central government share from the NLTF for the next phase of work (pre-implementation phase). The currently estimated implementation phase costs exceed the allowance made in the WK NLTP.

79. Whilst there is an explicit LGWM programme work stream to provide funding partners with analysis to assist them in agreeing a more enduring agreement for cost allocation, for the next phase (Pre-Implementation) of the Golden Mile project, the interim agreed funding arrangement, documented in schedule 5 of the 2020 LGWM Relationship and Funding agreement (RFA) to allocate cost shares to funding partners, will be used.

Legal considerations

80. No legal issues are noted at this stage.

Risks and mitigations

81. Cost Estimate: The P50 costs reported above has increased from the earlier cost estimate completed in June 2020 for public engagement of three shortlisted options. The earlier estimate was high level based on concept stage design (around 5% design). The LGWM Board and partners approved the preferred option in June 2021 that enabled the project team to proceed with preliminary level design (around 20%) that led to increased costs as we have better understanding of design elements, impacts and partner requirements. At preliminary level design (~20%), some risk of further cost increase remains as we cannot yet quantify the full impact of underground services, cost escalations, construction impacts and market rates. These will be managed in the next pre-implementation phase.

82. The following table list key items where this cost increase occurred, and suggested mitigation measures to manage this cost risk:

Phase	Items	Cost	Mitigation proposal
Pre-Implementation	Consultant Fee	$4.9M	Procurement negotiations to challenge scope and costs.
Pre-Implementation	Managed Costs (reviews, audits, advertising, Project management etc)	$2.0M	Manage at 3-year Programme level rather than project level and approve work as need basis.
Implementation	Management Surveillance & Quality Assurance consultancy	$3.6M	These supervision costs can be significantly reduced if LGWM programme hire dedicated Project Manager rather than outsourcing to consultants.

	supervision		
Implementation	Managed Costs	$5.25M	Manage at 3-year Programme level (rather than project level) and approve work as need basis. Dedicated in-house communication staff and reducing advertising costs during construction can provide significant savings
Implementation	Physical Works	$48.9M	Costs increase of around $7.8M (compared with previous estimate) is due to increased costs associated with drainage and streetlighting improvements. With ECI (Early Contractor Involvement) procurement pathway to allow physical works contractor involved earlier in design phase, there are opportunities to reduce this cost increase. Also, with Ground Penetrating Radar work underway, we will be in better position to quantify the risk of design changes due to underground services in next phase of the project.

83. Cost Contingencies- The contingency allowance has been reviewed and accepted by the WK Commercial team as well as supported by the independent parallel estimator WT Partnerships.

84. Scope and Quality - There is a risk that the expectations from partner organisations on both scope of the project, Infrastructure design requirements and quality of material selection (paving type) may add costs to the project without adding transport benefits. The project team plan to manage this risk by keeping decision makers informed of any scope/quality creep and to keep the project within the estimated cost of $87.5M (P50 estimate).

85. Integration with MRT and City Streets- This integration risk will be managed in the next detailed design phase once the MRT preferred option is confirmed and City Streets CBD cycleway link is investigated and confirmed.

86. Second PT Spine – The Golden Mile corridor have limited capacity up to 100 buses/hour per direction and any increase beyond this capacity needs to be accommodated on second PT spine. It is estimated that Golden Mile will reach this capacity in 2024/25. Therefore, GWRC and Metlink are currently investigating bus services that could be moved to this second spine within next three to five years to accommodate the future growth beyond the Golden Mile capacity limitations and must be consistent with longer term MRT infrastructure. There is a risk that the bus services planned move to the

second PT spine, without associated priority infrastructure and with increased congestion (due to PMVs diverted from Golden Mile restrictions) could lead to negative impact on bus service efficiency, reliability and patronage if not carefully planned and managed.

87. Impact of underground services on costs- The Ground Penetrating radar (GPR) work to understand and assess the type and depth of underground services and their possible clash/integration with proffered option will be investigated in the next phase. The cost estimate includes appropriate contingency allowance to manage this risk, however, we will only fully understand this risk and its ramifications once this GPR survey work is completed later this year.

88. Consultation/Stakeholders- The businesses, retailers and hospitality sectors have raised concerns over construction disruption effects. LGWM propose to get contractor involved early in the detailed design phase to jointly develop the construction staging plan (along with partners) and assess the impacts of disruption on the businesses and retailers of Golden Mile along with users of the surrounding transport network. Similarly, LGWM will work with WCC to also develop activation strategies to ensure people continue to access and shop on Golden Mile during the physical works.

89. Construction Impacts on businesses and bus services; There is a risk of impact of proposed construction works on the businesses and bus services on Golden Mile. It is too early to assess these effects without first understanding the construction methodology. The project team will develop this methodology in collaboration with consultants, contractor and partners in the next phase.

Disability and accessibility impact

90. The project team has numerous meetings with the CCS disability group and Blind Citizens group regarding the preferred option design. One of the ley feedback point was to improve accessibility for the people with accessibility needs. The project team has noted this feedback and have proposed to:

    a. increase the number of disability car parks provided on side roads (with no carparks on main Golden Mile corridor). Currently, on Golden Mile, there is only one disability on-street car park;

    b. locate these disability car parks closer to the Golden Mile corridor to improve availability and accessibility;

    c. investigate further accessibility improvement options on Golden Mile corridor, in the next design phase, for people with accessibility needs that needs them to be dropped off outside or very near to their destination.

91. In the next design phase, the project team is developing communications and stakeholder engagement plan that aims to develop design of preferred option in collaboration the Disability stakeholder groups.

Climate Change impact and considerations

92. The preferred option is expected to reduce carbon monoxide, carbon dioxide, nitrous oxide and PM10 emissions. That is, by improving public transport and active mode

infrastructure and by restricting access for private motor vehicles, the preferred option is expected to help make the bus / active mode network more efficient, attractive and encourage people to switch from their private motor vehicles to more sustainable modes of travel. It is noted that the preferred option is expected to generate about $17M (net present value) in emission reduction benefits.

93. The preferred option strongly aligns with The Te Atakura blueprint (2019) and implementation plan (2020) - commits WCC to ensuring Wellington City becomes a net zero carbon city by 2050 – including making the most significant reductions by 2030. Transport emissions are responsible for over half of Wellington's emissions – thus is a key action area. Further, as previously mentioned, WCC have commissioned a research report on Fossil-Fuel Free Central City and the programme will work collaboratively with our partners to agree how recommendations can be implemented on Golden Mile within the agreed project budget.

Communications Plan

94. Once all three partners (WCC, GWRC and WK) approve the Golden Mile Single Stage Business Case, it will be released on project website with associated key messages and engagement plan for next detailed design phase. The engagement plan will clealry communicate the approach and timeline for engagement with public, stakeholders and businesses to inform the detailed design of preferred option. The engagement will include businesses on both the Golden Mile corridor as well as the adjoining side roads (within limit of works). The SSBC will be finalised after the final approval by WK on 25th November 2021.

Health and Safety Impact considered

95. The preferred option is expected to have positive impact on health and safety by encouraging people to active modes and public transport and by reducing reliance on private motor vehicles. Any construction phase related health and safety risks will be assessed, quantified and reported (with mitigation plan) once the next detail design phase is completed.

Ngā mahinga e whai ake nei

Next actions

96. The project will seek business case approval from GWRC on 28th October 2021 and from WK Board on 25th November 2021.

97. The project will move into the next phase of detailed design (pre-implementation). This work is currently undergoing procurement negotiations with incumbent supplier (Future Group) and the detail design phase is expected to commence by end of October 2021.

98. Once the detail design commences, the following key priority actions will be taken:

    a. Complete underground services location investigation to better understand the services depths/locations using Ground Penetrating radar technology.

b. Complete archaeological, heritage and cultural assessments as part of an integrated cultural heritage philosophy.

c. Complete a HAIL (Hazardous Activities and Industries List) investigations to check for any contaminated sites.

d. The LGWM Urban Design (UD) framework is currently being scoped however, the LGWM urban design team are prioritising the delivery of draft UD framework criteria for the Golden Mile timeframes so that it can help inform the urban design interpretation and placemaking outcomes for the project.

e. Ensure early and regular engagement with partners to ensure collaborative design approach and input from elected members.

99. The project team will seek procurement approval to identify and engage potential contractors that can join the design team in the next phase using Early Contractor Involvement (ECI) procurement process. This will enable the project team to jointly design the project and ensure the construction methodology is robust to minimise disruption to businesses and travelling public. This approach will also open opportunities for potential costs savings for project due to early identification of risks and potential for design changes to mitigate these risks.

100. Once the detailed design phase is completed and design approved, the project team will work with WCC officers with respect to necessary traffic and parking changes (Traffic Resolutions).

101. The next phase will have stakeholder and community engagement at its core to ensure design approach is collaborative and works for all users, local businesses and retailers. A comprehensive piece of engagement needs to embed alongside the technical analysis to enable smooth progress towards the delivery phase.

102. Subject to business case approval by partners and release of the remaining pre-implementation funding by end of November 2021, we expect that detailed design phase will be completed by October 2022 to enable construction to begin by end of 2022.

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Attachments

Attachment 1. Golden Mile SSBC Draft
Attachment 2. A - Strategic Case Refresh
Attachment 3. B - Vision 2036
Attachment 4. C - MCA Report
Attachment 5. D - Design Philosophy Statement
Attachment 6. E - Economics Report
Attachment 7. F - Traffic Assessment Report
Attachment 8. G - Cost Estimate Report
Attachment 9. H - Consenting Strategy
Attachment 10. I - Traffic Regulations Strategy
Attachment 11. J - SSBC Risk Register
Attachment 12. K - Benefits Realisation Plan

Attachment 13. L - Peer Reviews

WELLINGTON CENTRAL CITY GREEN NETWORK PLAN

Kōrero taunaki
Summary of considerations

Purpose

1. This report asks Pūroro Āmua - Planning and Environment Committee to adopt the draft Wellington Central City Green Network Plan ('GNP') – (Attachment 1).

Strategic alignment with community wellbeing outcomes and priority areas

	Aligns with the following strategies and priority areas: ☒ Sustainable, natural eco city ☒ People friendly, compact, safe and accessible capital city ☒ Innovative, inclusive and creative city ☒ Dynamic and sustainable economy
Strategic alignment with priority objective areas from Long-term Plan 2021–2031	☒ Functioning, resilient and reliable three waters infrastructure ☒ Affordable, resilient and safe place to live ☒ Safe, resilient and reliable core transport infrastructure network ☒ Fit-for-purpose community, creative and cultural spaces ☒ Accelerating zero-carbon and waste-free transition ☒ Strong partnerships with mana whenua
Relevant Previous decisions	Council signed off on the Planning for Growth Spatial Plan which identified the Central City Green Network Plan as a key action. Council assigned budget to central city greening in the 2021-31 Long-term Plan, as well as agreeing to create compensatory green space if the Fale Malae project goes ahead on Frank Kitts Park.
Significance	The decision is rated low significance in accordance with schedule 1 of the Council's Significance and Engagement Policy as the GNP is a strong logical step from a prior decision. Outline the criteria that apply as set out in the Council's Significance and Engagement Policy. This is a mandatory consideration, regardless of the level of significance. Democracy Services will peer review the level of significance.

Financial considerations

☒ Nil	☐ Budgetary provision in Annual Plan / Long-term Plan	☐ Unbudgeted $X

2.

Risk

☒ Low	☐ Medium	☐ High	☐ Extreme

Authors	Gerald Blunt, Principal Advisor Design Strategy Caitlin Wallis, Intermediate Urban Designer
Authoriser	Vida Christeller, Manager City Design & Place Planning Liam Hodgetts, Chief Planning Officer

Taunakitanga

Officers' Recommendations

Officers recommend the following motion

That Pūroro Āmua - Planning and Environment Committee:

1) Receive the information
2) Adopt the draft Green Network Plan (GNP) – (Attachment 1).
3) Request officers to come back with an Implementation Framework and the finalised GNP early 2022 setting funding and partnering options, programmes of work, actions and targets over 30 years which will direct:
    a. Protecting existing green elements
    b. Planting more trees
    c. Enhancing and greening existing public spaces
    d. Developing sites into new parks
4) Request officers to identify a te reo Māori name for the GNP.

Whakarāpopoto

Executive Summary

3. The Central City Green Network Plan (GNP) is a key action out of the Planning for Growth Spatial Plan to complement growth and which helps address the climate and ecological emergency declared in 2019.

4. Council approved on 4 March 2021 with the adoption of the draft LTP for consultation the addition of $30 million in years 11-30 for the acquisition and development of central city parks and to enable more street tree planting and parks in the Central City to support population growth. In years 4-6 of the LTP there is $7.5 million assigned for purchase and development of one central city park.

5. The GNP focuses on how we can address the current deficit of greening for residents, workers and visitors in the central city as well as provide additional green infrastructure and public amenity as the central city densifies over the next 30 years.

6. This will be undertaken through the addition of more trees and plants and new green public spaces as well as upgrading existing public spaces.

7. This is supported by a multi-faceted approach based on treasuring what already exists, growing the green network, celebrating with partners and managing the green spaces well.

8. There was a councillor workshop held on the 28 September 2021 to introduce the approach, confirm the draft objectives and test which level of ambition regarding targets.

9. A Green Network Plan Implementation Framework (GNPIF) will be reported back to Committee in early 2022 and will set targets for the GNP and direct how the GNP will

be delivered. It will identify a series of, actions, funding options and delivery mechanisms.

Takenga mai

Background

10. The Green Network Plan was first identified as an action in the in the Central City Framework in 2010. Within the key objectives street greening and the development of a legiable green network are highlighed.

11. Since the adoption of the Central City Framework, a number of major public space upgrdaes have been undertaken including Pukeahu, the Victoria Street upgrade and the Cenotapth plazza.

12. The Spatial Plan 2021 identified the following: “Action 3.33 - Develop a Green Network Plan for the Central City and investigate opportunities to expand the green network beyond the central city to establish forests to sequester carbon”.

13. Through the spatial plan consultation 69% of respondents note the importance of protecting the natural environment and investment in parks and open spaces.

14. Through the development of the spatial plan and draft District Plan, officers have been working closely with mana whenua. Mana whenua are very supportive of greening initiatives.

15. In 2019 a report was commissioned for Wellington City Council by the New Zealand Centre for Sustainable Cities titled *“Green Space in Wellington’s Central City: Current provision, and design for future wellbeing.”* (Blaschke et. al, 2019). The report analysed the provision of public green space in central Wellington City in relation to current and projected future population levels. Key conclusions that came out of this were:

- “a relatively low and declining amount and accessibility of green space in the central city.”[1] The report identified that there is a deficit of green space both for the existing population, and the future population of the central city which is expected to grow from 18,000 to 36,000 over the next 30 years.
- Green space amount per capita in central Wellington City declines substantially - by half on average - when not increased in relation to the projected population growth by 2043.
- Increasing the total amount, accessibility and quality of green space in the central city will need to be achieved in order to accommodate future population growth and fulfil a vision of “central city green spaces that enhance community and ecosystem health”.

16. The Green Network Plan defines what greening means in a Wellington context, sets the strategy and together with the implementation framework will lay out a plan for how we address the exsiting deficit and provide for future growth in the Central City by setting targets for delivery in the next 30 years..

17. The green network plan is an integral part of the review of the Council’s Open Space and Recreation Strategy (Our Capital Spaces) that is due to commence this financial year (21/22), which addresses more widely the vision for open space provision and greening across the whole city.

[1] P58 Blaschke et. al

18. The Green network plan also interlinks with the sustainable food network which will be discussed at the Social, Cultural and Economic Committee on 2 December 2021. This will be considered in the development of the implementation framework for the Green Network Plan.

Kōrerorero

Discussion

19. The World Health Organisation (WHO) is clear that: "Urban green space is a necessary component for delivering healthy, sustainable and liveable cities."

20. The WHO also identifies that one in four people will experience a mental health problem in their lives. The environment in which people live is influential to their well being. There is now evidence of the importance of green environments in supporting human wellbeing and mental health – this is a relatively new area of study and there is increasing interest in how the design of cities can be restorative and increase (or decrese) well being of our people as well as our natural environment.

21. The draft GNP sets the direction for how we green Wellington's central city in the next 30 years to address the current deficit and provide for growth. It will help address the climate and ecological emergency declared in 2019. It makes a case for more green spaces and plants in the central city and identifies:
    - what is a green network plan,
    - the benefits,
    - the current state of greening in the central city,
    - objectives to focus key areas of action,
    - typologies and mechanisms for greening,
    - the proposal around a continuum of diverse green spaces,
    - a set of targets and
    - an implementation proposal for delivery.

22. The objectives are:
    - **Treasure** and protect what is important
    - **Celebrate** the value of green with partners to deliver green outcomes
    - **Grow** public green spaces and networks
    - **Manage** what we create and what we already have really well

23. A Green Network Plan – Implementation Framework (GNPIF) will be developed to set funding and partnering options, programmes of work, actions and targets over 30 years. Targets will be set to direct:
    a. Protection of existing green elements
    b. Planting of more trees
    c. Enhancing and greening existing public spaces
    d. Developing new parks

24. These targets will focus on both the quantity of trees and spaces and the quality of public green spaces. Upgrading and better connecting the existing green open spaces will allow for a greater diversity of use, and support the exisiting users and residents in the central city. The new green public spaces will support the projected population growth. These targets will be incorperated into the final GNP.

25. The GNPIF will consist of actions that are central to achieving the GNP objectives, and targets. The actions will include:

- Strategic and policy initiatives required to protect and embed green thinking into projects
- On-the-ground project-related and operational activities required to treasure, celebrate, grow and manage green initiatives
- Relationship management to foster greening partnership, collaboration and efficiencies within Council and with external stakeholders
- Advocacy and show casing to promote greening, its benefits and related behaviour change
- Clarity around ownership of implementing the GNP and resourcing to monitor and deliver outcomes.

26. The GNPIF will make explicit the actions that are already funded fully or in part and those that will require expanded or new funding and timeframes will be referenced as part of the next Annual Plan and Long Term Plan.

27. Council approved on 4 March 2021 with the adoption of the draft LTP for consultation the addition of $30 million in years 11-30 for the acquisition and development of central city parks and to enable more street tree planting and parks in the Central City to support population growth. In years 4-6 of the LTP there is $7.5 Million assigned for purchase and development of one central city park.

28. Indicative broad estimates of investment and options will also be included to inform decisions around target-setting and timing. Funding options will be better connected to development contributions. The GNPIF will be a living document, which will be regularly reviewed and updated in the light of changing context. For example, as LGWM work rolls out, the priorities for street tree planting might change.

29. The implementation of the GNP will be partly funded out of existing work programmes. for example the build back better programme.

30. Another example, the Transitional Cycling Programme which is looking at interim bike network solutions, will deliver temporary tactical urbanism techniques that will have greening elements. Through the Streets for People Programme, permanent designs will incorporate street trees and WSUD opportunities where appropriate.

31. The GNPIF which will be brought to Pūroro Āmua - Planning and Environment Committee in early 2022. The purpose of getting Committee agrement to the GNP, is to give officers a direction in developing the GNPIF.

32. Work has started on identifying new spaces for parks in the Central City.

Kōwhiringa

Options

33. Agree to all or some of the recommendations.

34. Request further work be done on the GNP. This will delay the development of the GNPIF.

35. Not approve the GNP.

Whai whakaaro ki ngā whakataunga

Considerations for decision-making

Alignment with Council's strategies and policies

36. The GNP was identified as an action out of the draft spatial plan to "develop a Green Network Plan for the Central City and investigate opportunities to expand the green network beyond the central city to establish forests to sequester carbon." It will support, influence, and help implement strategies and policies including the key drivers behind Planning for Growth, The Spatial Plan, Te Atakura, Our Capital Spaces (Open Space and Recreation Strategy), Our Natural Capital (Biodiversity Strategy) and Let's Get Wellington Moving. The GNP will do so by supporting the transition towards a higher-density, compact, liveable central city by ensuring residents will enjoy the benefits of nature close by. Wellington's biodiversity will be protected, and resilience enhanced within a healthy green network.

Engagement and Consultation

37. Part 6 of the Local Government Act 2002 applies to the decision to adopt the green-network plan. This essentially requires that local government decisions have identified the objective, considered reasonably practicable options, and considered effected persons views.

38. The plan arose out of the Council's engagement on the spatial plan, where the resounding community view was that the city should be greener. The plan provides the strategy for achieving this and will identify targets to assist in monitoring its implementation. The strategy is intended to be a relevant consideration for subsequent decisions on the shape of the city, such as transport investment and urban development decisions by the Council or planning decisions under the RMA. Aspects of the plan are unfunded, and this will require Council decisions to allocate funding through those processes.

39. In considering the extent of compliance with Part 6 of the LGA 2002 required for adopting the Green-network it is important to identify the effect of the decision, which is simply the creation of a relevant consideration to assist in achieving the community's objective of greening the city. The plan on its own does not alter rights, or obligations and will simply inform subsequent processes. These processes will ensure that people effected by the implementation of the objective to green the city will be able to provide meaningful input into the specific decision.

40. Therefore, there is no need to further engage on the plan because it is simply a strategy for implementing community views. Downstream processes will ensure that meaningful community engagement occurs at the time the strategy is being implemented.

Implications for Māori

41. The GNP arose out of the Council's engagement on the spatial plan which included partnership with mana whenua. The resounding view of residents, including mana whenua, was that the city should be greener. The GNP is part of an action plan by Council to deliver what the community have already communicated through previous engagement.

42. Ahead of the committee meeting the draft GNP has been presented at a hui with Taranaki Whānui on the 20th of September 2021, and Ngāti Toa on the 23rd of September 2021. These hui supported the intent of the GNP.

43. Future engagement with mana whenua will occur through the development of the GNPIF. Opportunities and iwi partnership will also occur through subsequent funding bids of the individual projects level.

44. Working with Mana whenua partnership is integral to the Treasure objective.

45. It is proposed to identify a te reo Māori name for the GNP.

Financial implications

46. The draft GNP has no finical implications.

47. The GNPIF will outline key initiatives and their financial implications.

Legal considerations

48. N/A

Risks and mitigations

49. The GNPIF will provide the detail, and therefore identify risk and mitigation.

Disability and accessibility impact

50. Planning for a growing central city is also good opportunity to take note and address our accessibility issues. All individuals should be able to share in all facets of the central city – including the enjoyment of our green spaces.

51. “Wellington is a city where many people want to live. We want to welcome everyone and ensure the city’s attractions are available to everyone. With steep hills and narrow streets, it’s not the easiest place to get around, and it is even more challenging for those with mobility issues, whether due to disability, age or having young children in prams and pushchairs.” (Accessible Wellington Action Plan 2019)

52. Including frequent opportunities to experience green (be it park spaces, town belt, harbour, or a high-quality streetscape) is critical to the success of a genuinely inclusive city. Implementation of the green network plan will be one of the many ways of supporting council’s goal of an inclusive + connected central city.

Climate Change impact and considerations

53. The Green Network Plan contributes positively to Wellington’s zero carbon goal one of the main objectives in the plan is to increase the tree canopy coverage of the central city. Trees absorb C02. While trees, rain gardens and wetlands absorb/filter rainfall and slow stormwater flow. Trees and other vegetation moderate summer temperatures.

54. We have engaged with the Climate Change Reponse team on a number of occasions and the draft has been sent to their team for review and feedback. The Green Network Plan has been confirmed by the Climate Change Response team to fit within the overall climate action communications direction and principles.

Communications Plan

55. A media release will be prepared.

Health and Safety Impact considered

56. N/A

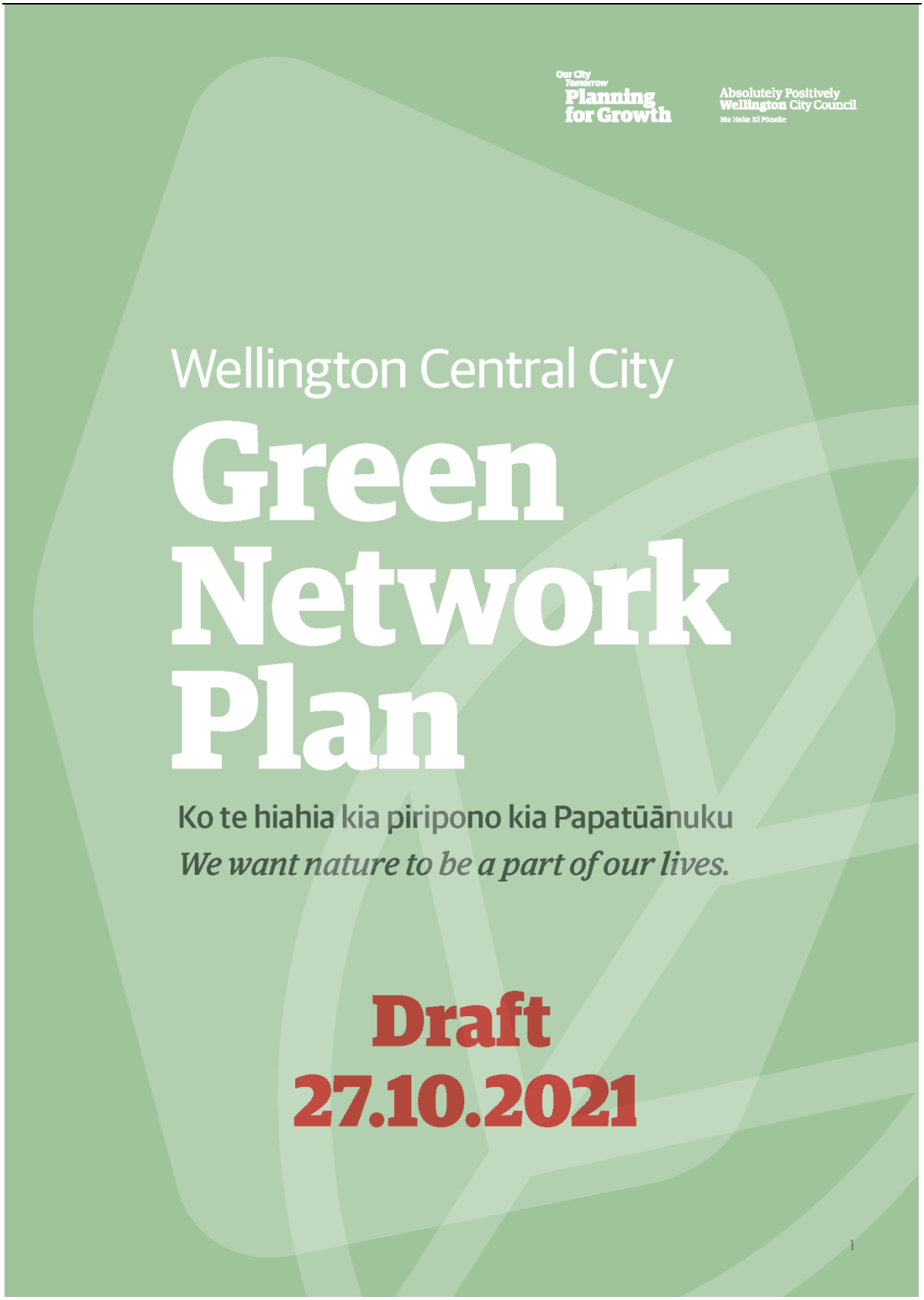
Ngā mahinga e whai ake nei

Next actions

57. The following work is proposed:
    - Identify a te reo Māori name for the plan
    - Engage with stakeholders and develop the GNPIF to bring back to Committee in early 2022.
    - Set up a web link to for public accessibility of the GNP and supporting information

Attachments

Attachment 1. Draft Green Network Plan


Our City Tomorrow
Planning for Growth
Absolutely Positively Wellington City Council
Me Heke Ki Pōneke
Wellington Central City
Green Network Plan
Ko te hiahia kia piripono kia Papatūānuku
We want nature to be a part of our lives.
Draft
27.10.2021
1

Parks Week Pop Up Forest in Bond Street

2

Contents

Impression of a greener central city by Studio Pacific Architecture

The Green Network Plan sets the direction and targets for how we green Wellington's central city in the next 30 years to address the current deficit, provide for growth and to address the climate and ecological emergency declared in 2019.

The central city is dominated by buildings, large areas of asphalt and paving. Streets are vehicle dominated, with large areas of car parking. The original vegetation has gone, the streams only exist in pipes. This has resulted in a deficit of green space in the central city for current users and residents. There is a need to further green the central city.

As Wellington changes and grows, with greater numbers of people visiting and living in the central city, there is a need to further treasure, celebrate, grow and manage the green network, with support from the blue network.

A diversity of green spaces, trees and plants that can be accessed and viewed is critical to people's wellbeing. Plants play a crucial role in sustaining a healthy environment and mitigating climate change.

Green and blue elements should be part of all development whether it is new infrastructure, transport and/or a building project. There is need to ensure the city continues to build on its liveability and 'eco-credentials'.

A network of green spaces, trees and planting in the central city will contribute to Wellington's aspirations for social, economic, cultural and environmental wellbeing and have benefits at different scales.

Global:

Climate change mitigation and adaptation.

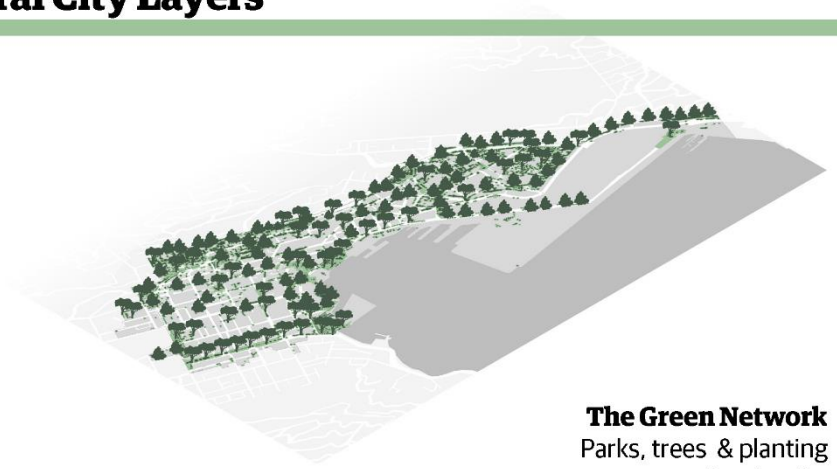
City:

A beautiful and connected central city.

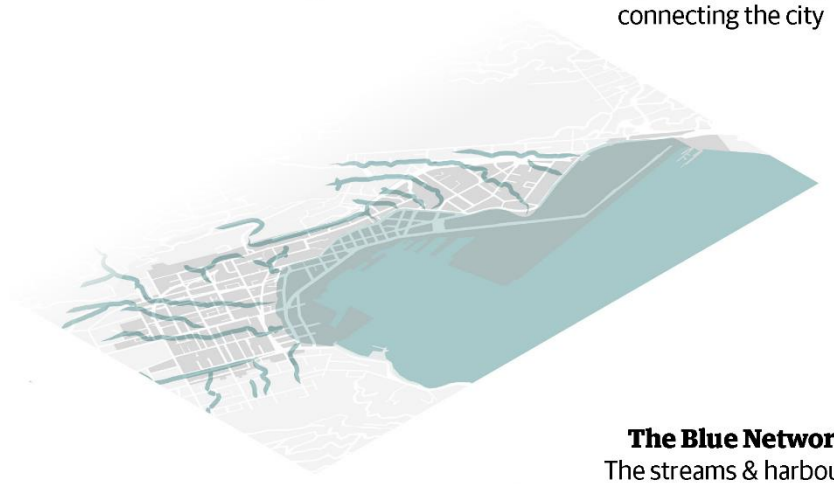
People:

Individual health and wellbeing.

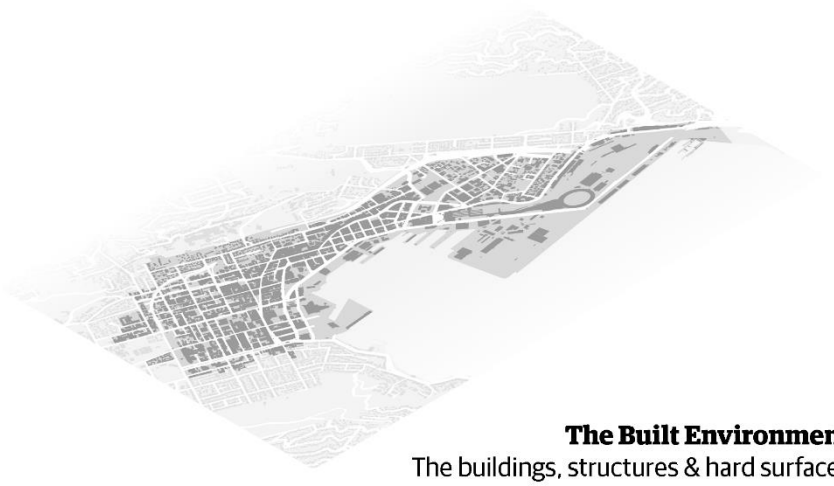
Central City Layers



The Green Network
Parks, trees & planting connecting the city



The Blue Network
The streams & harbour



The Built Environment
The buildings, structures & hard surfaces

6

The green network is the plants – the trees, shrubs, gardens and grass that 'green' and connect the city. These green elements can occur in all sorts of places, in both public and private ownership. These places include streets, parks, plazas, laneways, carparks, community gardens, roofs and even walls of buildings.

What is the Blue Network?

The blue network supports the green network and is the system that captures water, it consists of ground water, streams, waterways, wetlands and pipes. It is symbiotic with the green network as plants need water to survive and thrive. The management of stormwater and the quality of water is critical. Permeable surfaces (unpaved) allow rain to drain naturally into the ground. In conjunction with water sensitive urban design (WSUD) alternatives, these are alternatives to piping water.

What is the Green Network Plan?

This Plan proposes a well-developed continuum of green spaces to deliver the many ecological, social, economic, cultural and public health benefits to the central city, enhancing its liveability for existing residents, workers and visitors and also the growing numbers of new residents.

To optimise the benefits, the green network needs to be:

- well distributed and highly inter-connected across the central city (spatial)
- of adequate area (quantitative)
- of suitable quality (qualitative) in public and private ownership.

This Plan builds on the current status of 'green' in the central city, and proposes that investment and change is required to meet future demand. The distribution, quantity and quality of what exists, what is needed and where the opportunities are for improvement are all considered.

Delivering the green network will require:

- increased and ongoing investment to treasure, celebrate, grow and manage the city's plant life
- adequate protection and provision of public open space where significant parts of the green network should be located
- collaborating with other landowners to allow the green network to spread and flourish right across the city.

This document is non-statutory. It is intended to be used to direct green network investment and prioritisation, which will be done through the Green Network Plan Implementation Framework.

Vision

Thinking and living green in Wellington's central city, is the future for the planet and all of us.

This will lead to a thriving green capital city framed by the harbour and hills, composed of interconnected and cohesive neighbourhoods that support people to lead healthy

Why

"Urbanisation and climate change call for new solutions to maintain and improve the quality of life in our cities. Public green space has a positive effect on biodiversity, climate, wellness and air quality (Green Cities)."

Objectives

A multi-pronged approach that works at different levels is mandated to be delivered through the following objectives.

TREASURE and protect what is important

CELEBRATE the value of green with partners

GROW the number trees and public green

MANAGE what we create and what we already have really well

This will be done through a continuum of green spaces including:

- **Parklets**
- **Urban Parks**
- **Destination Parks**
- **Laneways**
- **Streets**
- **Public / Private Spaces**
- **Private Spaces**
- **Community gardens**
- **Green roofs**
- **Green walls**

Which contain green elements:

Trees **Shrubs** **Gardens** **Grass**

All supported by blue network elements which are often delivered through water sensitive urban design (WSUD).

8

Targets

The Green Network Plan – Implementation Framework (early 2022) will confirm a series of targets for delivery over 30 years, which will be supported by a series of actions. These will address both the existing green spaces and parks as well as directing new green spaces to provide for the projected residential population growth from 18,000 to 36,000 in 30 years.

Our targets are **(to come)**:

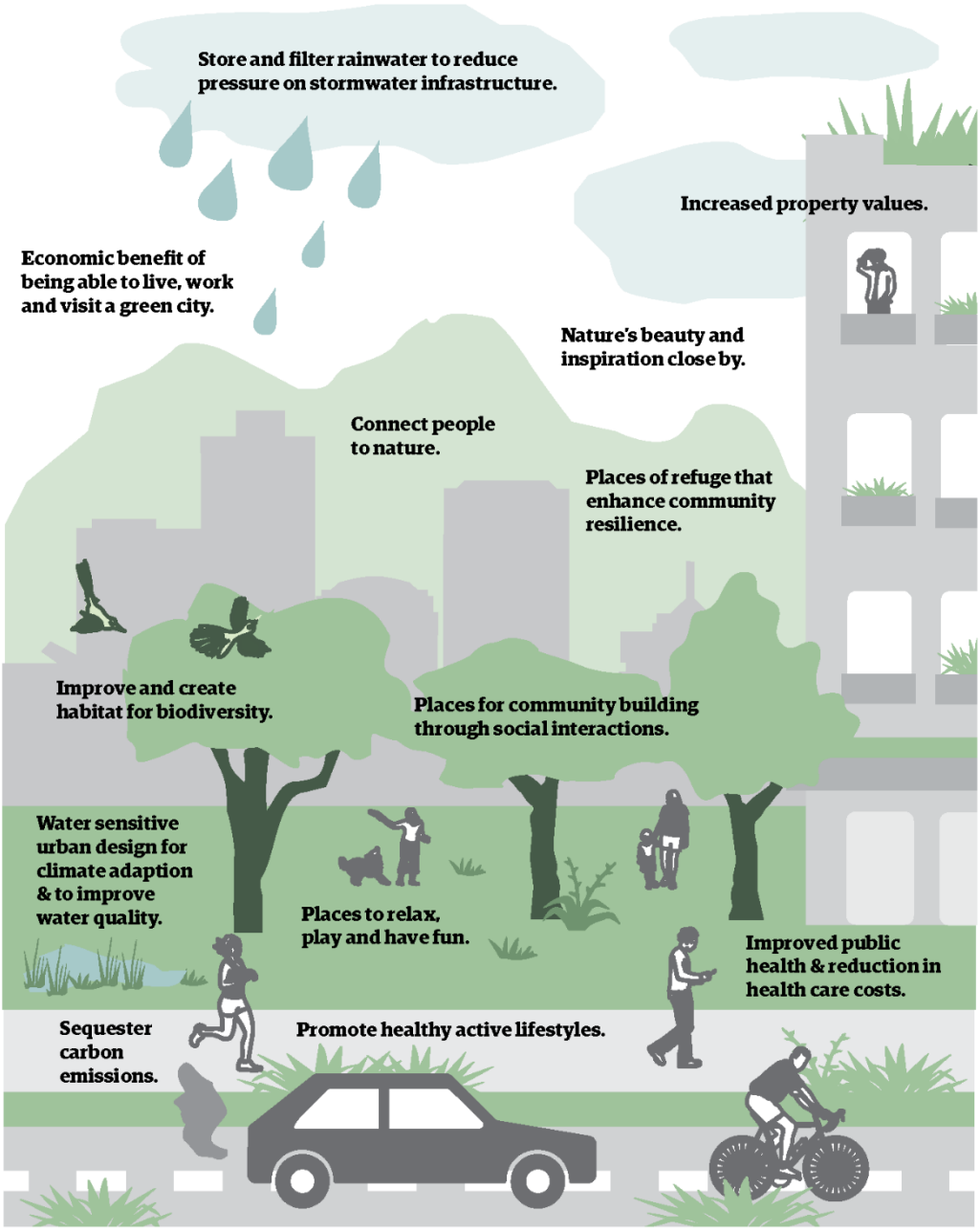
Protecting existing green elements

Planting more trees

Enhancing and greening existing public spaces

Developing sites into new parks

The Benefits



10

"Urban green space is a necessary component for delivering healthy, sustainable and liveable cities (The World Health Organisation 2017)."

Benefits of a green network

It is recognised that daily contact with nature is fundamental to good urban living. There is an ethical responsibility to conserve nature in the city as part of the shared global habitat for all life. Nature can be woven through cities in many ways – from wild biodiversity in large open spaces to gardens and individual trees in largely built areas, such as the central city. Research shows that plentiful green elements in urban environments bring many benefits to a good quality of life for residents and a healthy environment. Wellington is one of the founding cities in the Biophilic Cities Network.

Nature's services

Nature provides 'ecosystem services' that are fundamental to health, wellbeing and survival. Ecosystem services include the provision of air, water, fertile soils, nutrient recycling and energy all to support plants. Ecosystem services can also help mitigate against climate change. Trees, for instance, help offset emissions by storing carbon, regulate runoff during heavy rain and reduce the summer 'heat sink' effect by shading heat-absorbing built surfaces. They help reduce the impact of some of the unwanted outcomes of urban development. For example, air pollution.

Green and built elements need to be interwoven to ensure the benefits of both are realised.

People's health and wellbeing

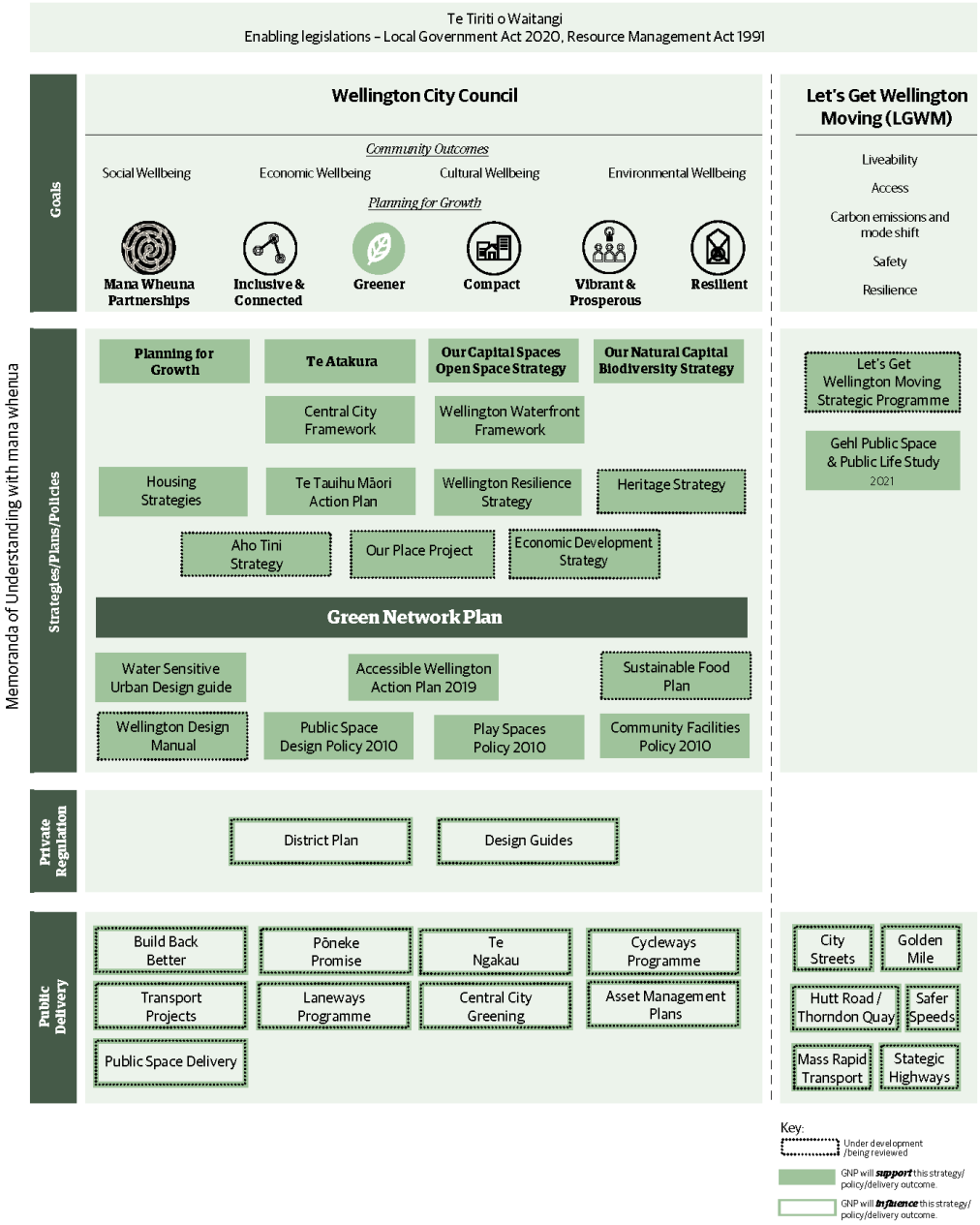
Many of the mental and physical health and wellbeing benefits we derive from urban open spaces are provided by nature, either directly or indirectly.

People tend to be more active in green spaces and this is linked to improved physical health, such as reduced diabetes, cardiovascular disease and mortality. Experience of nature in open spaces also correlates with improved mental health and creative thinking, and reduced anxiety and stress. Time in a green place provides an opportunity to have a break from intense periods of focused attention in indoor environments and recharge. Nature is often a source of new ideas.

The social interactions that occur in public green spaces can also help people connect socially, with improved sense of belonging and well-being. Collectively, these individual benefits bring wider public health and social benefits, such as reducing costs on our health systems and helping bring communities together.

The Context

This Plan is part of a suite of Council strategies and polices which are inter-related.



The hierarchy of overarching city goals and major strategies, policies and bylaws that the Green Network Plan will support or influence.

12

The following strategies, plans and studies all direct the development of the Plan:

The Central City Framework 2010

"Make our streets green – Wellington's streets will become greener and more attractive through a combination of planting, new and upgraded inner-city parks and intiatives such as 'stream streets' and wetlands in our city open spaces." "The development of a legible green network of spaces and links. This will include vegetation and systems both within public spaces such as streets and parks and also look at how private development can play a role."

The Wellington Waterfront Framework 2001

The Framework directs the management of the Waterfront. It proposes two large green parks – Waitangi Park and Frank Kitts Park. Key principles include:

"Ecological values of the waterfront will be maintained, bearing in mind that this is a highly modified environment.

There will be a variety of open spaces – some green, some sheltered and some paved."

Our City Tomorrow: Spatial Plan for Wellington City 2021

"Action 3.33 - Develop a Green Network Plan for the Central City and investigate opportunities to expand the green network beyond the central city to establish forests to sequester carbon"

Te Atakura - First to Zero

Move 1: Support the transition towards higher-density development by ensuring residents will still derive the benefits of being close to nature within a compact city.

Move 7: Protect and enhance the domain of Tāne by integrating an increased green network across the central city, with its biodiversity and ecosystem services (including carbon sequestration and investing in green infrastructure to help.

Wellington 2021 Public Space Public Life Study – Gehl Architects

The first of 4 key moves promotes "green and blue -working with the unique natural assets and amenities -can make Wellington an even greener, resilient and more sustainable city."

Our Capital Spaces, open space and recreation strategy for Wellington

The four outcomes of the strategy are: (i) getting everyone active and healthy; (ii) protecting our birds, nature, streams and landscapes; (iii) contributing to Wellington's outstanding quality of life; and (iv) doing it together.

Our Natural Capital 2015

Wellington's indigenous biodiversity strategy and action plan aims to protect and restore indigenous biodiversity, connect people to nature and foster their sense of kaitiakitanga – weaving nature through the city.

Contribute to Objective 3.1.1 to ensure all Wellingtonians encounter nature on a daily basis; specifically through actions (a), (c) and (g) to increase native planting, increase the number of large trees and install green roofs and walls in the central city.

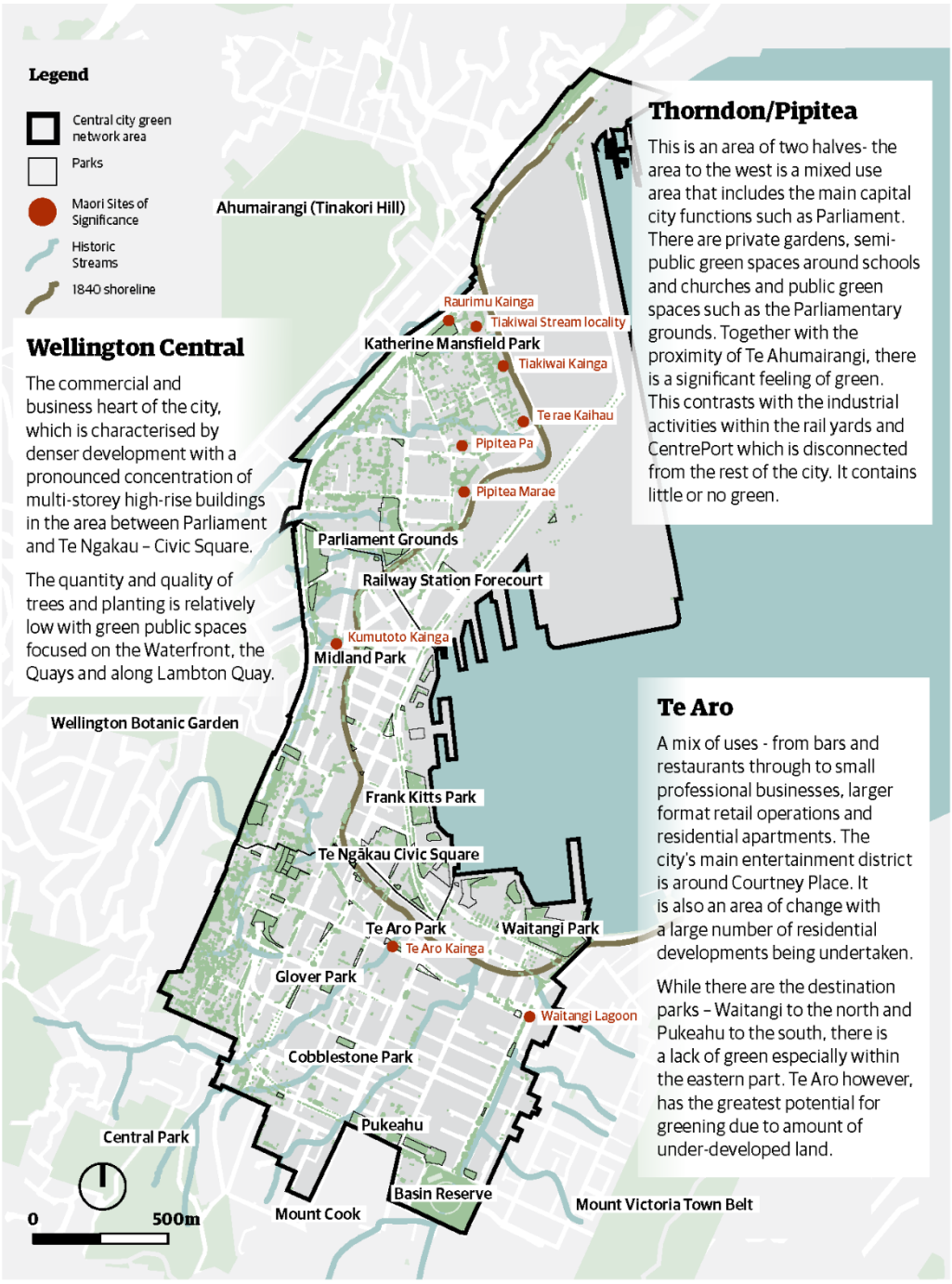
Green Space in Wellington's Central City – Blaschke et al 2019

The report analysed the provision of public green space in central Wellington City in relation to current and projected future population levels. Key conclusions that came out of this were:

"Green space amount per capita in central Wellington City declines substantially - by half on average - when projected population growth to 2043 .... is considered."

Increasing the total amount, accessibility and quality of green space in the central city will need to be achieved in order to accommodate future population growth and fulfil a vision of "central city green spaces that enhance community and ecosystem health."

The Current Status of Greening



14

Opportunities

Wellington's central city setting is by world standards – beautiful. The beauty and character is derived from its landscape setting. The central city is part of a layered amphitheatre; the containment of steep bush clad hills, giving way to residential suburbs, the central city and the waterfront. These all face out to Te Whanganui-a-Tara, the harbour.

The indigenous vegetation andthe old streams add to the story. The history of places, the pa sites of tangata whenua and their food gathering areas are part of this whenua.

The adjacent Town Belt, the subdivision of sections, the reclamations and dense urban form, tells the story of European settlement. The current parks and planting – both exotic and native – are an important starting point towards regreening the central city.

As the capital city, Wellington incorporates national institutions and associated significant public spaces such as those associated with Parliament, Te Papa and Pukeahu.

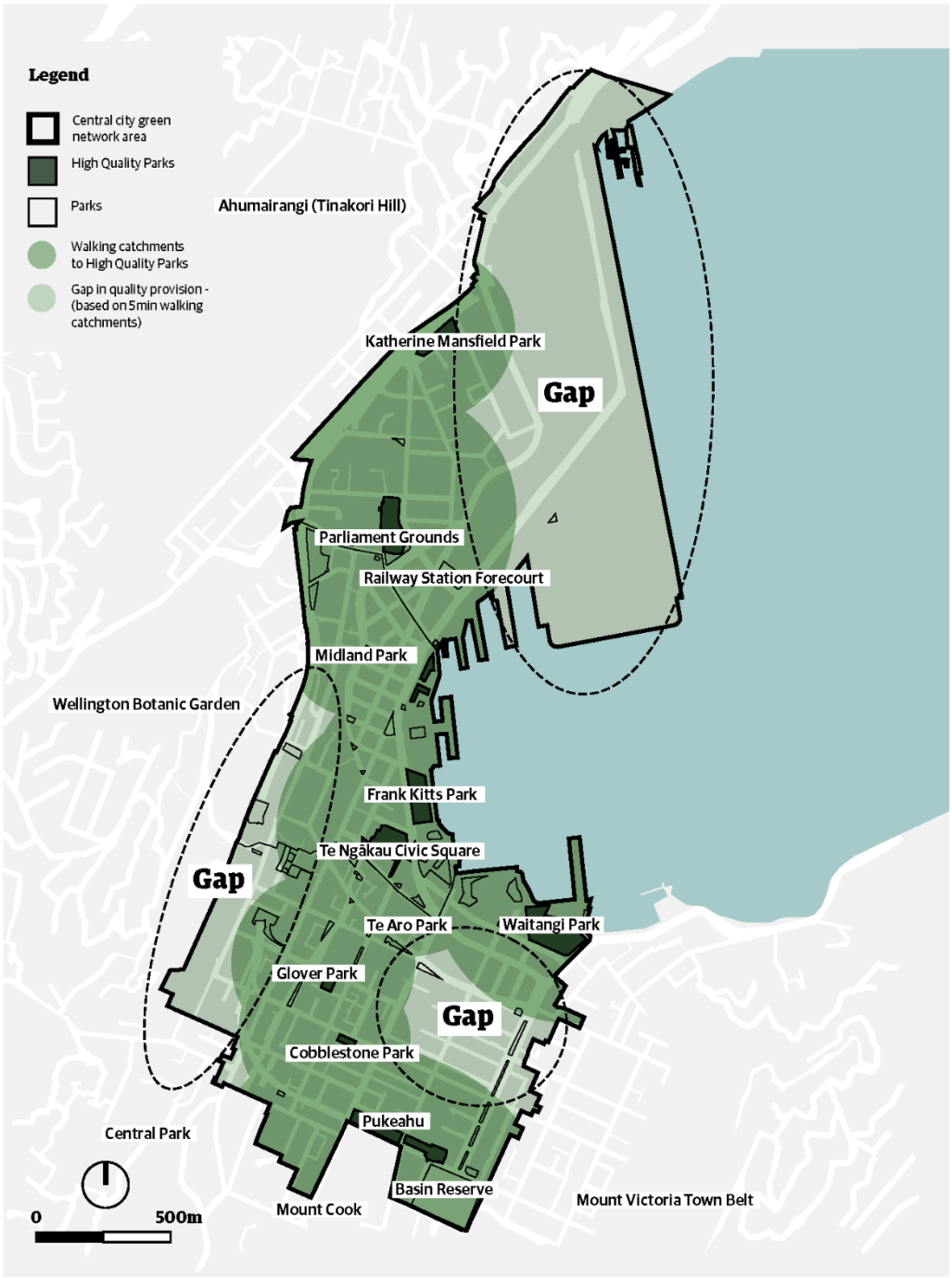
These are stories of this place, and its people. They can be used to enhance the identity.

At a wider city scale Wellington does have substantial and a varied amount of green space.

The natural landscape is something valued. "We are a 'Natural Capital' due to our natural environment and our nature-driven attractions. It is part of what makes us the 'coolest little capital in the world.' It is an important part of what makes people want to live and work here and helps to attract visitors (Our Natural Capital 2015)."

Images (top left to bottom right): View from Mount Victoria; Watangi Park; Pukeahu.

The Current Status of Greening: Public Parks Distribution



16

Challenges

The total central city is 444.5ha. Just over 9% or 41.25ha can be considered as green spaces.

These green spaces are made up of:

- 43% public parks
- 24% road reserves
- 33% privately owned

The central city is car focused, with approximately 11% of the central city dedicated to car parking/parking lots (note this does not include on-street parking or roads/streets).

The central city has a deficit of green space for the current residents, workers and visitors. This will be further exacerbated by the population growth which is projected to double from 18,000 to 36,000 over 30 years.

Central city living means more public green spaces are needed for people to use in a wide variety of ways – in addition to the 'wilder' hilltop parks of the nearby Wellington Town Belt. People thrive in cities where greening (in all it's forms) is part of the urban fabric. Space needs to be deliberately allocated for this purpose.

Climate change and natural disasters bring a vulnerability; storms, flooding, earthquake induced liquefaction, tsunami and plant disease all need to be considered.

The central city has a fragmented green space network with minimal cohesion and limited areas of ecological focus. There are significant gaps within the open space catchment, especially through Pipitea and Te Aro. There is also a significant lack of street tree planting which hinders greater connectivity between green parks, the Town Belt, Wellington Botanic Garden ki Paekākā and the Waterfront.

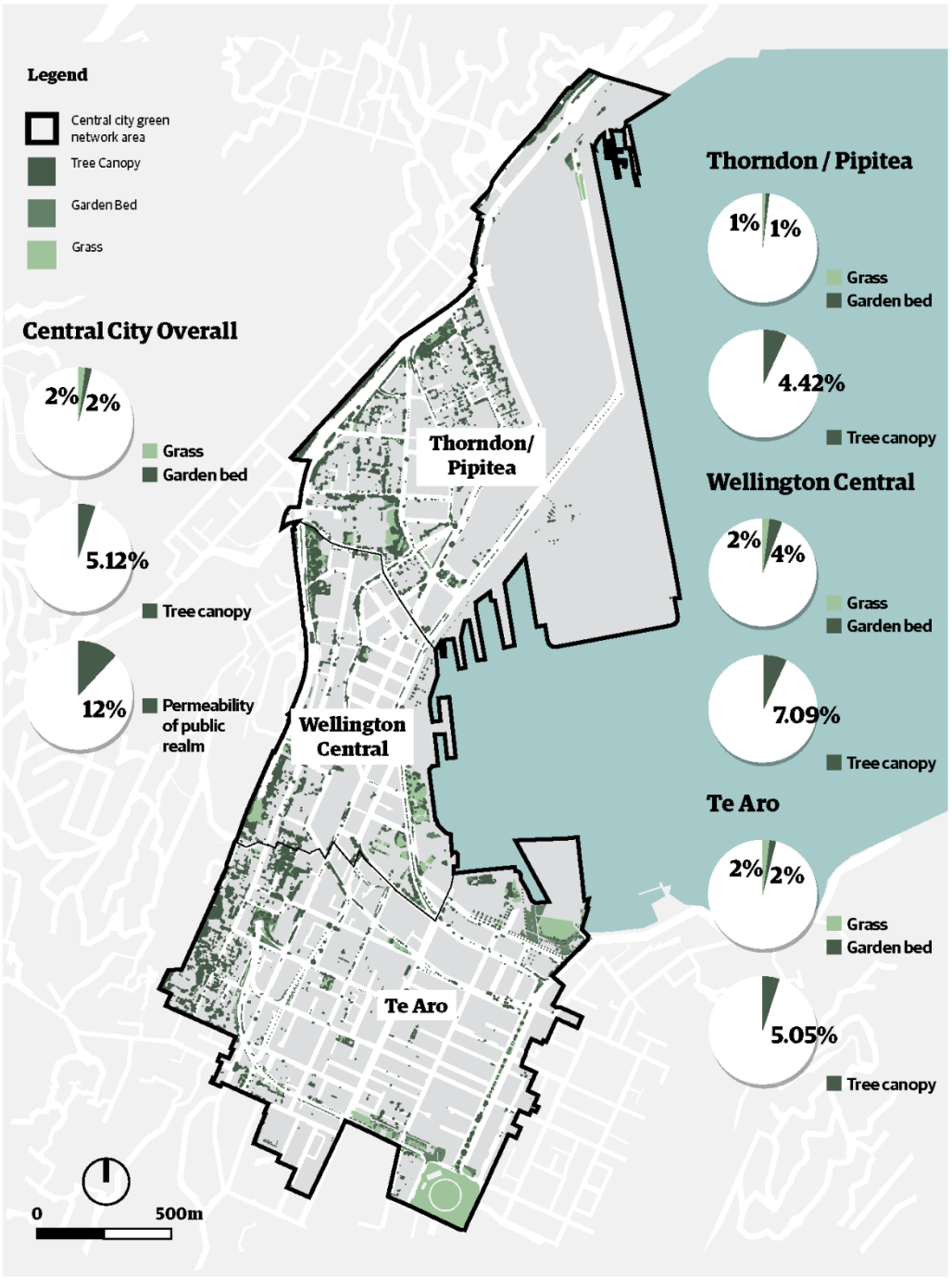
Current green spaces are of mixed quality and need to support a more diverse range of uses and ecological needs. Currently there is minimal tree protection for central city trees.

There are few incentives or requirements for private development contributions to the city's green network.

Due to the topography and the prominence of the Town Belt, there can be a skewed perception of how green the central city is.

Images (top left to bottom right): Wellington Motorway, Wellington Central City Apartment Dwellers; Wellington Central City Population.

The Current Status of Greening: Green Cover



18

Green Cover

Grass Cover

Half the public green space is grassed/ lawn. This creates a relatively mono-culture environment that limits habitat opportunities and overall biodiversity. However it does provide for a range of multiple uses.

Permeable Surfaces

The large area of hard paving and buildings in the central city causes flooding in extreme events when the stormwater system cannot cope. Surface runoff can be reduced if more surfaces can absorb water – permeable surfaces. Permeable surfaces are the grass, gardens and permeable paving. Given that 88% of public space is impervious, there are minimal benefits from ecosystem services.

Tree Canopy

Tree canopy cover is a well utilised global measure, that can be assessed over time. It is the proportion of a fixed area of the ground covered by tree crowns. The canopy cover will be determined by the tree species, as each species has different crown sizes, shapes, and heights. Trees support water retention, habitat and provide amenity for people.

In terms of tree canopy, Wellington's central city does not measure well against other cities:

City	City Wide	Central City
Wellington	30.6%	5.12%
Auckland	18%	19%
Christchurch	15.6%	17.05%
Sydney	18%	14.5%
Melbourne	16.2%	11%
London	21.9%	18%

Images top left to bottom right: Cordyline australis (NZ Cabbage Tree) planted in Civic Square; Hebe speciosa a flowring native shrub species; Lawn found at Civic Square.

The Plan: Objectives

TREASURE
and protect what is important

There is a need to:

Build on the essence of Te Whanganui-a-Tara by understanding the original topography and vegetation cover, the stories of settlement and their respective plantings as part of those settlements.

Engage with mana whenua to identify, protect and explore opportunities around green/blue sites of cultural significance and restore appropriate flora and fauna to the central city.

Protect existing trees and public green spaces in the central city ensuring no net loss and grow over time.

Investigate supporting blue network elements for interpretation and using planting through WSUD initiatives.

Use a diversity of plant species to allow for different character in different neighbourhoods and enable plants to be selected to suit varying needs and site conditions. There is a need to consider the 'right tree for the right location'.

Identify the existing spaces and parks to become either a parklet, urban park or a destination park.

CELEBRATE
the value of green with partners

There is a need to:

Think and live 'green', as it is intrinsic to our global natural habitat and survival. There is a need to change behaviour.

Work in partnership with the people and agencies who live, work, own and manage property in the central city. These include Central Government, LGWM, schools/ universities and property owners and developers.

Establish a Green Network champion network both internal and external to Council to advocate green/blue thinking.

Educate and support teaching programmes, for example how to set up gardens – grow plants/food and communal composting.

Provide interpretation and public art - identify opportunities in green spaces for interpretation: mana whenua – eg Rongoa Māori; heritage significance and / or explaining infrastructure systems – eg Waitangi Park WSUD and the value of parks, trees and plants.

Look to develop best practice guides to direct delivery of greening initiatives with partners.

GROW
more trees and public green spaces

There is a need to:

To deliver a continuum of diverse green spaces.

Build on opportunities. Assess new green space opportunities of a variety of sizes to support a mix of active and passive uses.

Invest in further greening in Council owned assets, to maximise value for the environment, the city and people.

Change streets from just movement corridors to places – 'living streets' for people to enjoy. Always look to the opportunity for planting trees in the streets.

Prioritise locating new green parks in neighbourhoods where there are gaps and/or future growth is anticipated.

Improve accessibility for all to be able to experience green.

Grow the opportunity of green walls and roofs, develop options for community gardens and compost hubs.

Explore green finger opportunities from hills and harbour into the central city.

Integrate avenues of trees into existing work programmes such as LGWM projects.

Integrate WSUD initiatives into a wider network.

Develop a plan(policy) to deliver parklets.

Promote permeable surfaces to better manage surface water runoff.

MANAGE
what we create and what we already have really well

There is a need to:

Actively manage and maintain the trees and green spaces to retain their high quality.

Provide for the best growing conditions. This starts with a robust design process, construction/planting and ongoing care.

Set up appropriate asset management plans and appropriate funding as part of the AP and LTP processes.

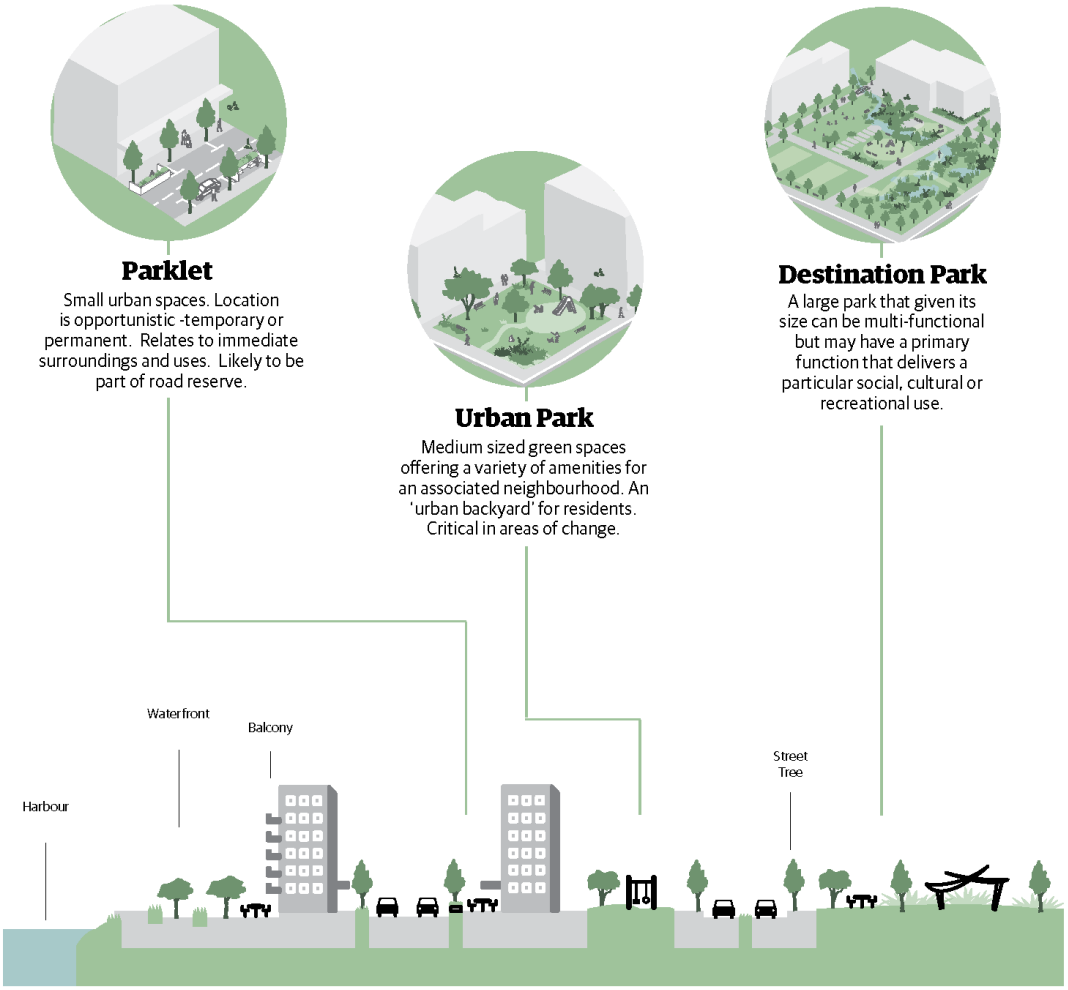
21

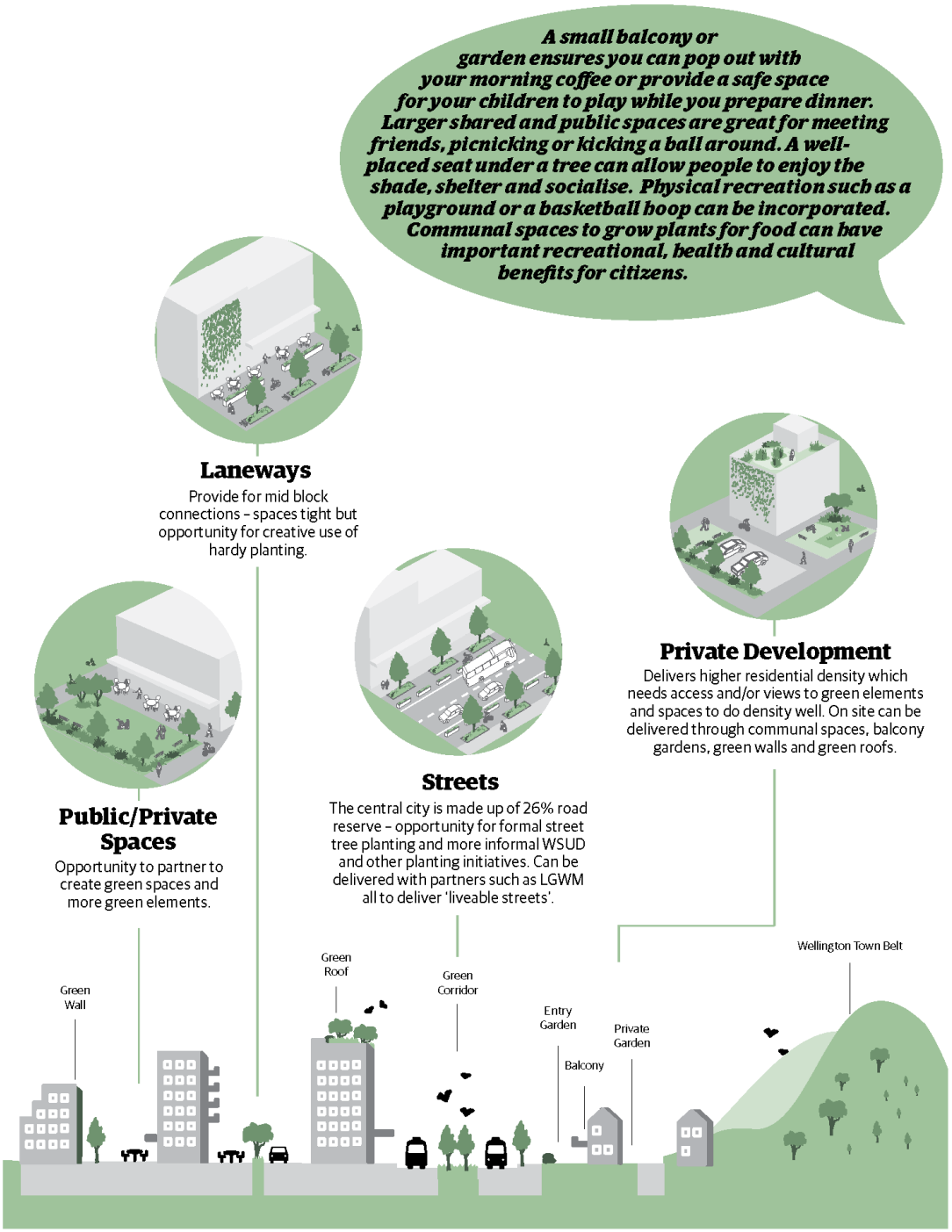
The Plan: Continuum of diverse green spaces

In 30 years the population will double with more people in higher density living. This density needs to be done well which includes accessing and being able to view greenery.

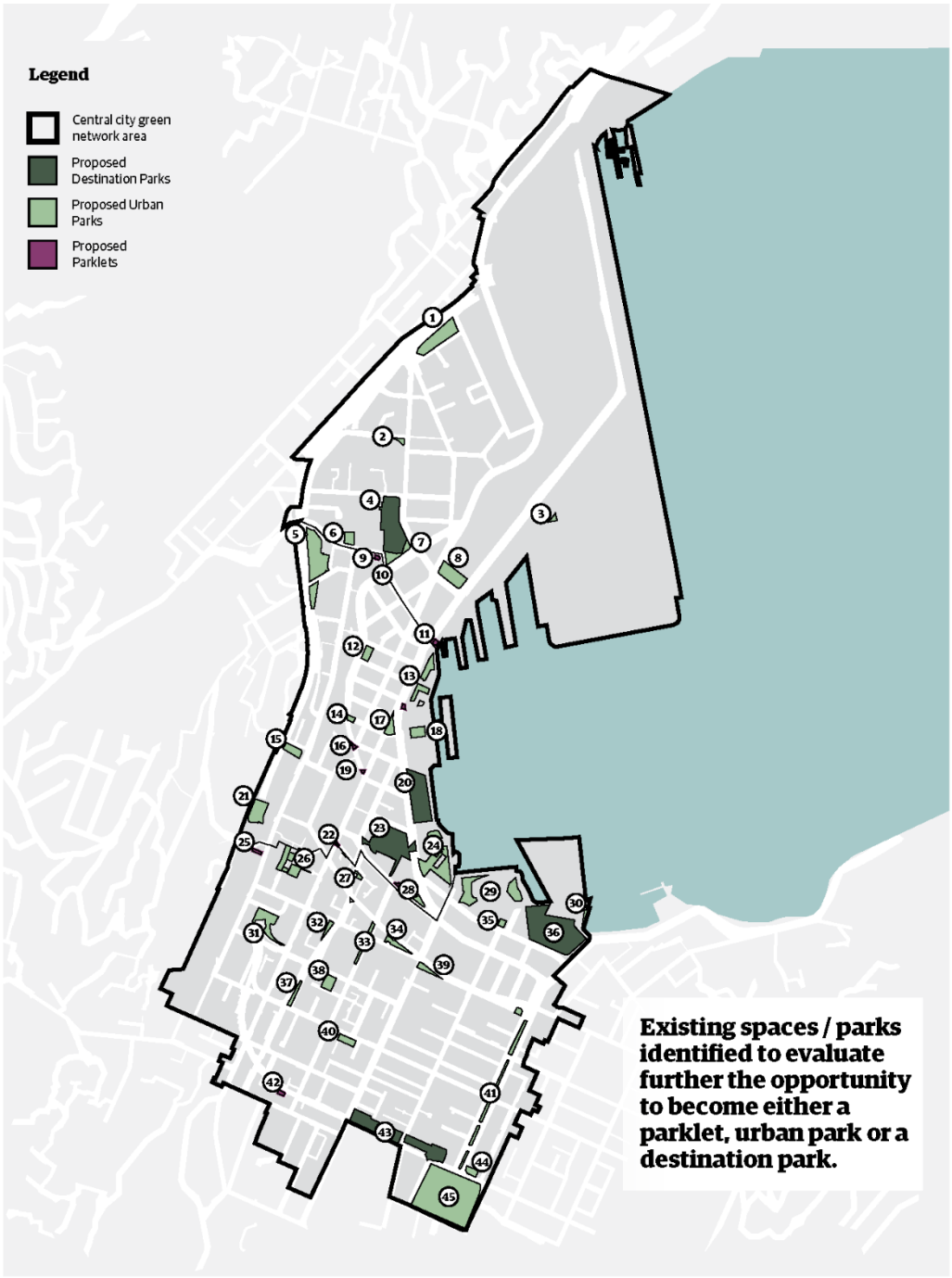
This plan directs a continuum of public and private green and open spaces to provide for a diversity of uses. Public parks are important as they are accessible to all and can be of sufficient area to provide multiple community and environmental benefits, and provide a green character in a neighbourhood. The open spaces where green and blue elements can flourish, are not just confined to public parks. The street network and private land also hold potential for more green elements.

The quality and diversity of greening is critical to allow people to enjoy green spaces that are safe and attractive while providing for good access and amenities. Enabling the right balance of green and open spaces is vital to support a variety of housing typologies and neighbourhoods to cater for a broad range of people throughout all stages of their lives.



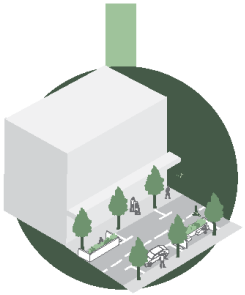

A small balcony or garden ensures you can pop out with your morning coffee or provide a safe space for your children to play while you prepare dinner. Larger shared and public spaces are great for meeting friends, picnicking or kicking a ball around. A well-placed seat under a tree can allow people to enjoy the shade, shelter and socialise. Physical recreation such as a playground or a basketball hoop can be incorporated. Communal spaces to grow plants for food can have important recreational, health and cultural benefits for citizens.
Laneways
Provide for mid block connections – spaces tight but opportunity for creative use of hardy planting.
Public/Private Spaces
Opportunity to partner to create green spaces and more green elements.
Streets
The central city is made up of 26% road reserve – opportunity for formal street tree planting and more informal WSUD and other planting initiatives. Can be delivered with partners such as LGWM all to deliver 'liveable streets'.
Private Development
Delivers higher residential density which needs access and/or views to green elements and spaces to do density well. On site can be delivered through communal spaces, balcony gardens, green walls and green roofs.
Green Wall
Green Roof
Green Corridor
Entry Garden
Balcony
Private Garden
Wellington Town Belt

The Plan: Enhancing and greening existing public spaces



24

	Spaces	Proposed Type
1	Katherine Mansfield Memorial Park	Urban Park
2	Magyar Millennium Park	Urban Park
3	CentrePort Park	Urban Park
4	NZ Parliament Grounds	Destination Park
5	Bolton Street Cemetery	Urban Park
6	Bolger Park	Urban Park
7	Waititi Landing (ANZAC Corner)	Urban Park
8	Railway Station Forecourt	Urban Park
9	Alexander Turnbull House Lawn	Parklet
10	The Cenotaph - War Memorial Reserve	Urban Park
11	Whitmore Plaza	Parklet
12	Midland Park	Urban Park
13	Kumutoto Park	Urban Park
14	Grey Street Pocket Square	Urban Park
15	Everton Terrace Park	Urban Park
16	Lambton/Featherston/Hunter Plaza Spaces	Parklet
17	Post Office Square	Urban Park
18	Queens Wharf Open Spaces	Urban Park
19	Old Bank Plaza	Parklet
20	Frank Kitts Park	Destination Park
21	Terrace Tunnel Park - North	Urban Park
22	Bond Street	Parklet
23	Civic Square	Destination Park
24	Taranaki St Wharf/Lagoon Area	Urban Park
25	Mount Street	Parklet
26	Flagstaff Hill / Terrace Gardens	Urban Park
27	Denton Park	Urban Park
28	Michael Fowler Centre Carpark	Parklet
29	Te Papa Perimetre Open Spaces	Urban Park
30	Clyde Quay Park	Urban Park
31	Terrace Tunnel Park - South	Urban Park
32	Volunteer Corner	Urban Park
33	Cuba Mall	Urban Park
34	Te Aro Park	Urban Park
35	Wakefield Street Park	Urban Park
36	Waitangi Park	Destination Park
37	Te Niho Park	Urban Park
38	Glover Park	Urban Park
39	Courtney Place Streetscape Openspaces / West Courtenay	Urban Park
40	Cobblestone Park	Urban Park
41	Cambridge / Kent Terrace Median	Urban Park
42	Karo Drive Sculpture Park	Parklet
43	Pukeahu National War Memorial Park	Destination Park
44	87 Kent Terrace	Urban Park
45	Basin Reserve	Urban Park



Parklet

Size: <200m2
Catchment: as opportunities arise
New parklets delivered through re-allocation of street or other smaller spaces.

Urban Park

Size: 200m2 – 3,000m2
Catchment: about a 5min walk
New urban parks delivered through strategic land aquisition.

Destination Park

Size: Large, multi-functional park space
Catchment: about a 15min walk

The Plan: Delivery

Images (top to bottom): Planting; Parks Week Pop Up Forest in Bond Street

26

"The overarching recommendation is to plan for, and adequately resource an increased amount, accessibility, and quality of green space in the central city, in order to provide for the health, wellbeing, amenity, and ecosystem benefits required by the likely significantly larger future population of the central city (Blaschke et al 2019)".

The delivery occurs through the Green Network Plan- Implementation Framework.

The Green Network Plan and the Impementation Framework will

- direct strategic and policy initiatives required to protect and embed green thinking into projects.
- engage with operational projects and activites required to treasure, celebrate, grow and manage green initiatives.
- co-ordinate relationship management to foster greening partnerships, collaboration and efficiencies within Council and with external stakeholders.
- direct advocacy to promote greening, its benefits and related behaviour change.

It will be done by setting targets, actions and measurables. The actions are central to achieving the vision and objectives.

The Framework is a living document, which will be regularly reviewed and updated in the light of the changing context and:

- will provide clarity around ownership of the Plan and resourcing to monitor and deliver outcomes
- indicate broad estimates of investment - making explicit the actions that are fully or partly funded, those that will require new funding and referenced as part of the Annual Plan and Long Term Plan rounds.
- will better connect greening outcomes to funding cycles including Development Contribution Policy. The Council will manage the green network as a key part of the central city's infrastructure.

28

Appendix 1

Green History of Wellington Central City

History of Greening in the Central City

Te Aro Pā looking towards the Hutt River (Alexander 1842-43)

Birdseye view of Port Nicholson (Heaphy 1843)

1500 - 1800

Prior to Maori settlement much of the shores of Te Whanganui a Tara were covered by bush iwi settled on the shore of the harbour and land was cleared.

1820s

Taranaki iwi expanded into the central Wellington area. This saw Pipitea Pā, Kumutoto Kainga and Te Aro Kaiaanga/Pā further developed and expanded.

Pipitea Pa had areas of cultivation extending along Hobson Street to the base of Te Ahumairangi Hill.

Kumutoto Kāinga situated above the mouth of Kumutoto Stream. It was known as a flax collecting area and boat landing site.

Te Aro Kainga/Pā was the largest pa in the Wellington region. Cultivation extended to Buckle Street and up the Brooklyn Hill. Other food sources were Waitangi Lagoon – on the eastern side of Te Aro, the surrounding bush and the harbour itself.

1839

The artist Charles Heaphy described the future central city site as a place covered with high ferns and tupakihi tutu, rush, flax and much of the land was impassable swamp. The area that is now the Basin Reserve was 'morass' with an outlet to the sea. The Terrace was timbered with high manuka and Thorndon was fern covered.

NZI Street Parade Civic Square

Pukeahu National War Memorial Park

2014

Pukeahu National War Memorial Park opens as a place to remember and reflect on New Zealand's experience of war, military conflict and peacekeeping and provides for a sense of national identity.

1990s - early 2000s

The waterfront evolved, the area around Taranaki Street wharf was followed by Waitangi Park, the largest public park in the central city. The public were very engaged in this project which integrates Wellington's coastal ecosystems, environmental infrastructure and cultural and historic overlays, with spaces for various activities and uses. Further open space development on the waterfront followed; the area around the Wharewaka and Whairepo Lagoon and further north, the area around the mouth of Kumutoto Stream.

1992

Pidgeon Park was renamed Te Aro Park with a redesign led by Shona Rapira Davis which recognises the significance of the site due to its relationship to Te Aro Pa and was the first example of continual engagement with mana whenua across a project that highlights a hugely significant story from Te Ao Maori.

Waitangi Park

1991

The new Civic Square (Te Ngakau) opens providing the central city with an important civic space, integrating a number of smaller public spaces around the then Council buildings. The City to Sea bridge links the Square across to the Waterfront.

30

Plan of the town of Wellington (New Zealand Company 1840)

Scene in the Botanical Gardens (Unknown ca 1840)

1840

Given Wellington's steep topography the Mein Smith survey laid out 1100 town acres covering Te Aro, Thorndon and The Terrace. The steep slopes adjacent to the flat areas became the open spaces – now the Town Belt, with limited public open spaces within what is now the central city. Two cemeteries adjacent to the central city were created, the larger Bolton Street Cemetery and the smaller Mount Street Cemetery for those of the Catholic faith.

1860s

The bush on the surrounding hills was cleared and burnt, leaving a barren aspect from the harbour. Native bird life was drastically reduced. Reclamation was underway to support the mercantile businesses and port development with minimal thought of parks or public spaces.

1869

The Wellington Botanic Gardens were established, on the forested site that Te Atiawa from Pipitea Pa had used for food cultivation and native plant gathering.

Late 1800s

Relatively large scale commercial development occurred in the central city with very little green in Victorian Wellington. Private gardens were described as bare of trees with some kitchen gardens on larger sites.

Development along Lambton Quay (Hinge 1920)

Midland Park (Selkirk 1983)

1983

Midland Park was opened. The Council bought the Midland Hotel and had it demolished. It was to be start of developing a series of public parks in the central city, which never transpired. Both Glover and Cobblestone Parks in Te Aro have further evolved.

1970s

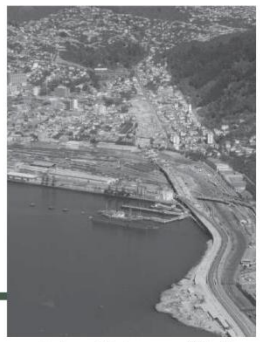
Frank Kitts Park opened on the waterfront in 1976 on redundant Harbour Board land. Initially half the current size, it was expanded in the late 1980s in line with plans to open up the waterfront for the public. This started with a Civic Trust run public competition in 1982 for the future of the waterfront.

1964

The start of the urban motorway construction led to hundreds of houses demolished and the bisection of the Bolton Street cemetery with 3693 human remains needing to be reinterned. Katherine Mansfield Park was developed adjacent to the motorway.

1900s

Pidgeon Park opened.



Urban Motorway (Whites Aviation 1969)

31

32

Appendix 2

Strategic Context

Our City Tomorrow Alignment

Compact

Wellington builds on its urban form with quality development in the right locations.

The inner-city population will increase with higher density residential accommodation developed in the central city. Research shows people need ready access to green space for their health and wellbeing, so high quality, well-designed green spaces will be a critical factor in supporting the intensification. The green spaces will need to be of various types and be multi-functional to meet the needs of residents, workers and visitors and increase the amount of nature and its useful services in the central city.

Greener

Wellington is sustainable and its natural environment is protected, enhanced and integrated into the urban environment.

Greening the central city will reintroduce natural processes and connections that help keep our urban environment healthy and liveable.

- **Healthier environment**: Trees and plants improve air quality by capturing airborne particles and water quality by filtering out pollutants.
- **More sustainable**: Planting, raingardens and wetlands filter pollutants and also store and slowly release stormwater, reducing flood risk. Trees and plants can store carbon and provide food.
- **More biodiversity**: More green spaces can provide habitat for numerous plant and animal species.
- **More liveable:** Trees and plants provide shade, shelter and sensory stimulation that helps to make the city pleasant to be in.

Vibrant + Prosperous

Wellington builds on its reputation as an economic hub and creative centre of excellence by welcoming and supporting innovation and investing strategically to maintain our thriving economy.

Central city green spaces can support Wellington's economy by enhancing our reputation as a city that is close to nature and stimulating to be in.

- **Showcasing sustainable urban design:** The green network can visibly show how nature and high-density living can be creatively integrated and reflect Wellington's unique environment.
- **Visitor attractions:** Green spaces can be attractions in themselves (e.g. Pukeahu National War Memorial Park) and accommodate events and exhibitions based on Wellington's unique history, arts and leisure scene.
- **Property value:** Studies indicate that properties close to green open space in high density housing areas tend to have higher real estate value.
- **Supporting creativity:** Green spaces close to where people work provide opportunities for people to take time out during the working day, mentally recharge and derive inspiration from being in the open air and close to natural elements.

Inclusive + Connected

Wellington recognises and fosters its identity by supporting social cohesion and cultural diversity, and has world-class movement systems with attractive and accessible public spaces and streets.

Well-designed central city green spaces can provide important places of connection for all.

- **Social gathering:** Provided they are designed to feel safe, accessible and shared, green spaces are places where people can freely mix, relax, have fun and build a sense of community. The green elements help to make these spaces pleasant and calming – places of respite from the demands of everyday life that supports positive social activity.
- **Sense of belonging:** The green spaces can be designed to reflect Wellington's unique natural, social and cultural history, which helps build a sense of identity and belonging.

Resilient

Wellington's natural and built environments are healthy and robust, and we build physical and social resilience through good design.

Central city green spaces can help build resilience through:

- **Climate change mitigation and adaptation:** Trees absorb CO2 . Trees, rain gardens and wetlands absorb/filter rainfall and slow stormwater flow. Trees and other vegetation moderate summer temperatures.
- **Community building:** Residents know each other through encounters, activities and events in the green spaces – building a sense of belonging and community support.
- **Places of refuge:** In natural disasters, people seek out green spaces as safe, communal gathering places. In pandemics, people seek out green spaces as safe places for exercise, fresh air and stress relief.
- **Improved citizen health:** The demand on health services, and costs, are reduced because people's physical and mental health improves through their contact with nature.

Mana Whenua Partnerships

Mana whenua development and landowner interests are recognised in planning and developing our city. Design of our public space is undertaken in collaboration with mana whenua.

The central city green spaces will be co-designed with mana whenua.

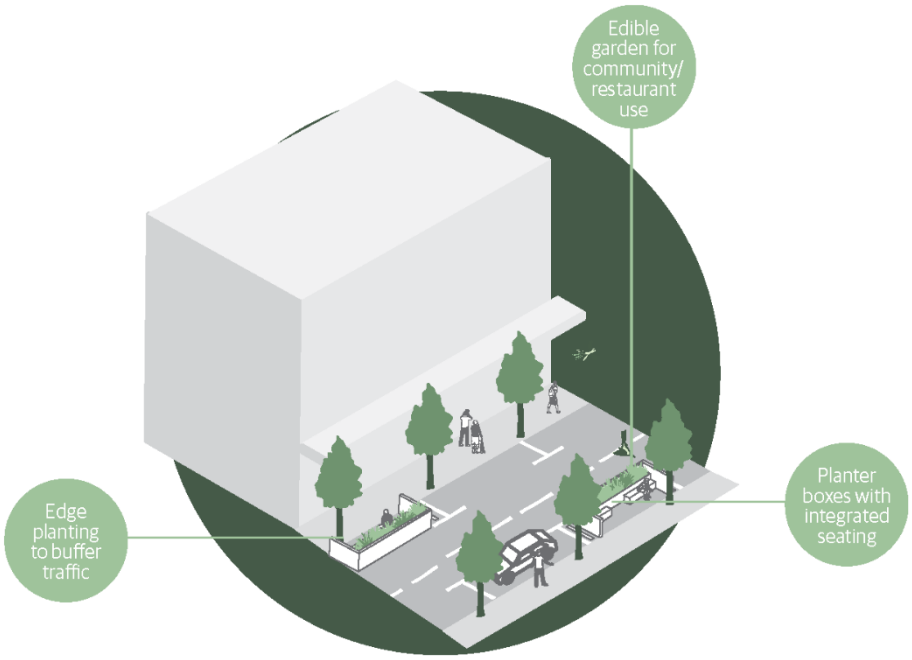
- **Tirohanga o te ao** (Māori world view), traditional knowledge of taiao (natural environment) and kaitiakitanga (guardianship) can be embedded and help shape the green network. For example, the alignment and character of green spaces could reflect the original streams
- The **cultural landscape** of Te Whanganui-a-Tara, including sites of significance, can be recognised and expressed through design and story-telling interpretation.

Our City Tomorrow: Spatial Plan for Wellington City 2021 includes six goals to guide how Wellington city will grow in the future, develop and address key challenges such as population growth, earthquake risk and climate change – while continuing to be a highly liveable city. Implementing the central city green network plan can help achieve the goals.

36

Appendix 3

Green Space Types & Case Studies



Parklet

These are small urban spaces designed with people, businesses, and the surrounding environment in mind. Parklets can be opportunistic in land acquisition, range from temporary to permanent installations, and encourage community-led activation and use.

Parklets will be mostly delivered through reallocation of street space, shifting its use from car storage to spaces for people.

Size: <200m2

Catchment: as opportunities arise

Green elements:

Due to their size, parklets require efficient methods to increase their greening potential. Strategic placement of planting that uses limited surface area is best for this typology. Every tiny patch of green helps to reinforce the health and connectivity of the wider network.

Greening appropriate to the type includes:

- Edge planting
- Green walls
- Planter boxes
- Small edible gardens for community or restaurant use
- Small specimen trees

Other amenity considerations relative to type:

- Seating / tables
- Play elements
- Temporary food truck/coffee carts
- Public art / interpretation
- Scooter / bicycle parking

38

Case Study

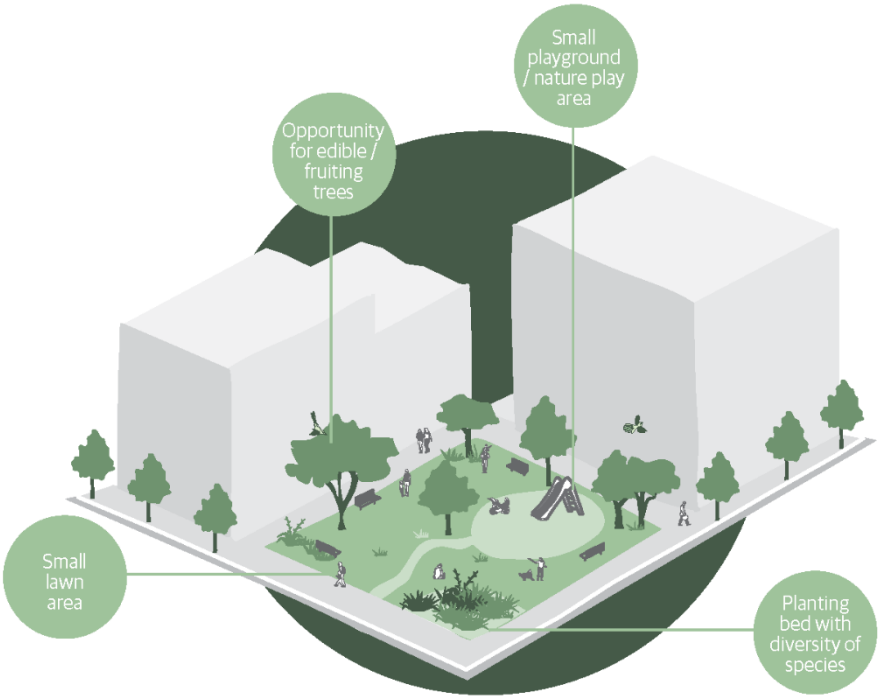
Fresh Air Square, London (WMB studio)

Fresh Air Square is one of a series of parklets that have been installed in London as part of Team London Bridge's fresh Air Squares initiative. The initiative aims to improve local environments, raise awareness of London's pollution, and monitor air quality. The Tooley Street parklet (shown above) was the first one to be installed in November 2015. It was designed to replace two standard car park spaces.

The Fresh Air Square is a colourful modular parklet that can be scaled up or down depending on available space. The installations are temporary but built to promote the need for more permanent green spaces in the city. The parklet features a zigzag bench built using scaffolding boards painted bright red for traffic visibility.

Pockets of greening have been weaved along the roadside edge, creating a buffer from wind exposure and passing traffic.
Fresh Air Square is useful as a case study a the design's modularity could be replicated in different locations and configurations throughout the city.

Parklets like these can create small chances for respite, interaction, allow for business activation and alleviate footpath congestion. They can be both temporary and permanent and be peppered throughout a city as opportunities arise.



Urban Park

An urban park prioritised in areas of change with significant existing or anticipated urban growth. These spaces will provide residents, workers, and visitors to the central city respite from the built environment and the opportunity to connect with nature.

Where residential development is dense, they will offer a social and recreational hub for inner-city communities. For individuals or families living in a relatively small central city apartment without a typical suburban backyard, urban parks provide everyday access to a shared "urban backyard." These spaces will be high-performing for their size, offering a variety of amenities that respond and cater to the needs of the associated neighbourhood.

Size: 200m2 - 3,000m2

Catchment: about a 5min walk

Green elements:

Urban parks like Cobblestone Park are a good example of maximising green space, planting, and canopy cover with a balance of recreation uses while limiting the amount of paved surface area.

Greening appropriate to the type & site context includes:

- Patches of planting / canopy cover
- Lawn area
- Planting beds with a diversity of species
- Nature play elements
- WSUD elements
- Edible/fruiting trees
- Small community garden & composting

Other amenity considerations relative to type:

- Multiple seating / picnic areas
- Shade structures
- Small playground / nature play
- Could include sports facilities eg. 3 on 3 court/ hoops/ skate surface etc
- Artwork / interpretation that engage with mana whenua/cultural values
- Includes spaces for temporary kiosks and food trucks/coffee carts
- Integrated with existing pedestrian and cycle connections
- Scooter / cycle parking facilities

40

Case Study

Cobbleston Park, Wellington (Wraight + Associates)

There are limited opportunities to purchase and convert land to new urban parks in a growing central city. This means when Council acquires land, it needs to work much harder to meet the needs of the current and future populations. Such requirements command a creative design approach to make sure these spaces are both high quality and multi-functional.

Cobblestone Park is a good example of this creative design approach. The park efficiently makes the most of green space with a series of useable lawn terraces, planting beds that filter the site-generated storm-water runoff, and retention of the existing mature trees found on the site.

Seating opportunities were increased through thoughtful design of the retaining walls along the pedestrian spine and terraces and dotted beneath the tree canopy watching over the playground. Paved surfaces are limited to the central pedestrian spine, and basketball court – green and permeable surfaces are maximised throughout.

For a small park, Cobblestone accommodates a wide range of users. The lawns are used by students and city dwellers seeking a place to relax and eat lunch. The play area and steppingstones beneath the trees offer opportunities to connect with nature. While the basketball court is a chance for active play, found few and far between in the central city. It is an actively used park that provides essential green and amenity functions to the city and surrounding neighbourhood.

Image: Sea level rise and storm inundation – threaten low-lying areas of the central city.

42

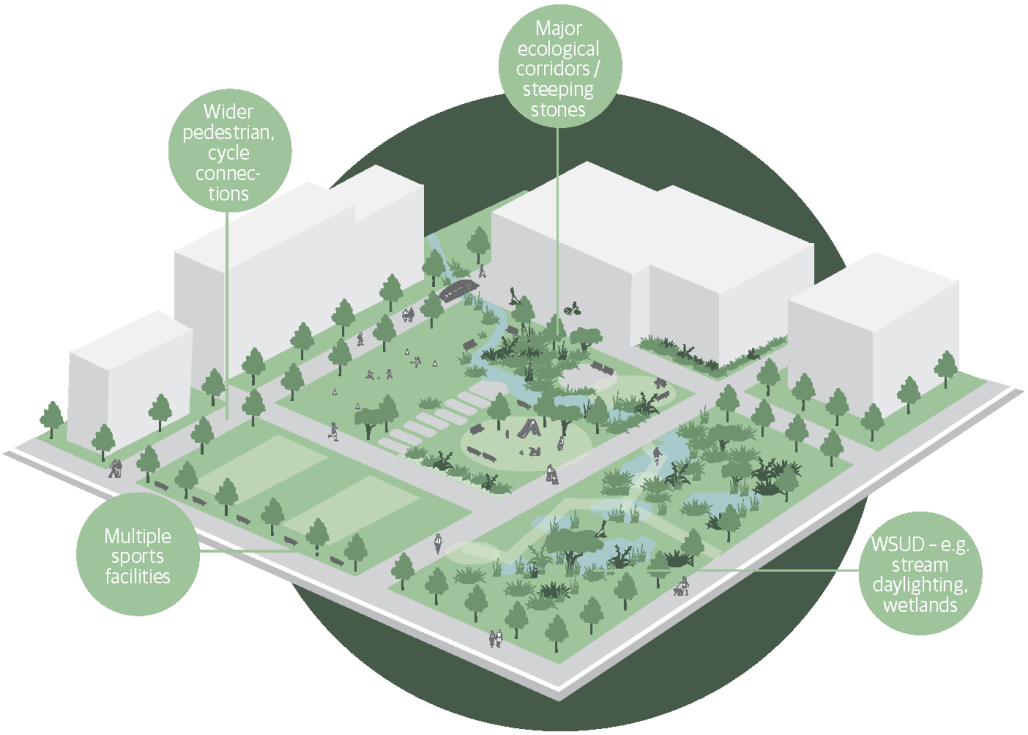
Case Study: Climate Adaptive Urban Park

Taasinge Square, Copenhagen (GHB Landscape Architects)

Taasinge Square is an exceptional example of an urban park space that integrates greening approaches with climate adaption. Climate adaption is a pressing issue in Wellington's central city – with most of the development on low-lying reclaimed land – flooding, sea-level rise, and liquefaction are significant concerns. Looking to cities the are setting a precedent for creative adaption is critical.

Taasinge Square is part of Copenhagen's broader Cloudburst Plan, the city's climate mitigation plan following the 2011 flood, which caused roughly NZD 1.5 billion in damages. The 20-year plan includes over 300 blue/green infrastructure projects for water rendition and drainage integrated into Copenhagen's streets and public space network and the private realm through public-private partnerships. It is an integrated planning approach that focuses on the liveability benefits such investment can provide the city.

Once underutilised paved surface, the square itself has been converted to a valuable public green space. This natural refuge supports biodiversity while detaining and collecting rainwater from the surrounding streets and rooftops. The square shows how stormwater detention (both above and below ground) can produce playful urban spaces that support community interaction and delight – adding value to our urban neighbourhoods.



Destination Park

A large urban destination or an anchor place. As a green space it will have high cultural, social, and recreational importance to the central city. They will accommodate a mix of uses, respite, recreation, planned events, tourism, and large gatherings of people.

Catchment: about a 15min walk

Green elements:

These spaces are an opportunity to showcase our best practice greening approaches to public space. The greening needs to contribute to the space's strong character and identity. Greening must support the multi-functional needs as a place of refuge, events, and sites of ecological & cultural importance through high-quality, diverse planting treatments.

Greening opportunities could include:

- Large areas of planting (i.e. urban forest establishment, ecological significance)
- WSUD – e.g. stormwater catchment & treatment, stream daylighting, wetlands
- Large lawn space (for kickaround space & large events & civil defence)
- Community garden, urban farming & orchard
- Dedicated ecological areas that form part of the city's ecological network (steppingstones / corridor)

Other amenity considerations relative to type:

- Multiple seating / picnic areas / shade structures
- Significant playground and multiple nature play areas
- Multiple sports facilities eg. 3 on 3 court / football fields / skate surface etc
- Design/elements strongly reflect the site's history and are well grounded in mana whenua / cultural values
- Managed/programmed events Permanent kiosks and spaces for food trucks/coffee carts
- Intergrated into the wider pedestrian, cycle and public transport network
- Public toilets/ bicycle & scooter parking

Case Study

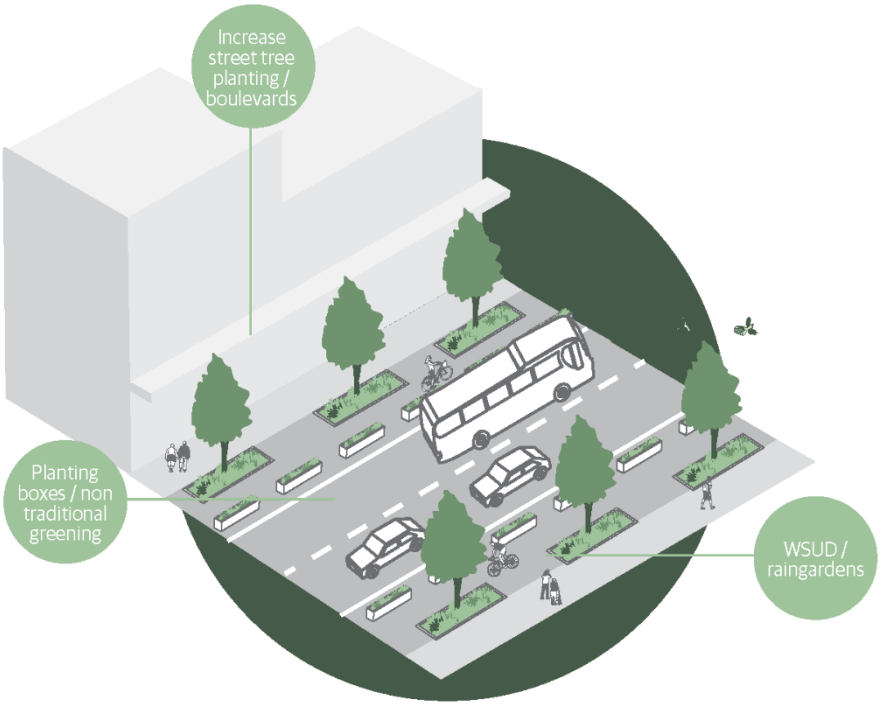
Waitangi Park, Wellington (Wraight + Associates)

Waitangi Park is a successful study of how our green spaces can not only meet our city's environmental and amenity needs but also express our cultural narratives and relationship with nature.

At 5.8ha Waitangi Park is the largest park in the central city. The park provides many recreational amenities such as the large lawn area, skate park, children's playground, and basketball courts and often hosts various public events.

The central design element of the park has been the integration of the Waitangi Stream. Before the development of the central city, the Waitangi Stream and lagoon were critical sources of food gathering, freshwater, and materials for local iwi. The story is that the stream and lagoon was once the home of a taniwha that disappeared upon European arrival. This narrative aligns with the eventual fate of the stream. It was piped for urban development.

The daylighting of the Waitangi stream and interpretation of the lagoon through a planted narrative reveals the potential of what our natural heritage can bring to the city. "The park's environmentally sustainable design and the water sensitive urban design strategy not only contributes to improved water quality but also contributes to the visual appeal of the park generating a unique character for the place (Wraight + Associates)."



Streets

The Council owned road reserve is 26% of the area of the central city. Streets present a significant opportunity to deliver green outcomes for the central city.

Green streets are the connectors, linking the various green spaces and infrastructure while addressing multiple needs such as creating habitat corridors, stormwater management, and air pollution and noise reduction.

A collaborative approach needs to be undertaken so that there is a balance between streets being places for people and movement corridors to achieve multi-beneficial outcomes.

There are opportunities to partner with LGWM and leverage off other programmes and projects including the cycle network delivery.

Green elements:

Examples of greening elements appropriate to this space could include:

- Hardy street tree species / habitat corridors
- WSUD / rain gardens / stormwater management
- Planter boxes
- Parklets delivered through reallocation of street space

Case Study

Lower Cuba Street, Wellington (WCC)

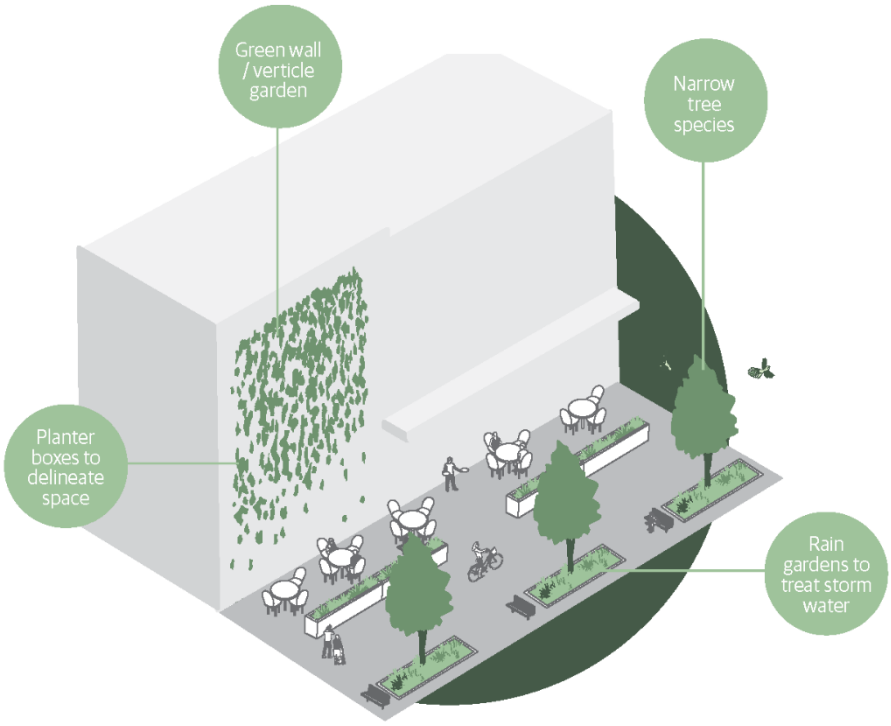
Lower Cuba street is an excellent example of streetscape greening in a Wellington central city context.

Lower Cuba Street was redesigned as a shared space in 2011 to provide some additional public space when Manners Mall was removed. The street provides a clear pedestrian link from Cuba Mall to Civic Square and the waterfront. Conversion from a car dominated space to shared space gives pedestrians priority by limiting vehicle speeds to walking pace.

The greening in this example reinforces the pedestrianisation of this street by providing amenity and helps to outline the shared and pedestrian zones. Street trees provide a visual corridor making the street width look narrow, encouraging vehicles to slow down.

Rain gardens offer visual interest and contact with nature while helping the city manage stormwater sustainably. Water that runs into the rain gardens filters down to the sub-soil drainage instead of straight into the drain and harbour. The trees and plants will, in the process, filter out any pollutants.

In the Wellington Public Space Public Life Study 2021, Gehl has highlighted Lower Cuba Street as exemplar street greening. Gehl states, Lower Cuba Street "has a great presence of greenery adding a positive sensory environment to the city (Gehl 27)."



Laneways

Laneways play a vital role in the public realm and finer grain network of the central city. They can improve midblock connectivity for people on foot when adequate investment is made to ensure they are attractive, safe, and activated.

Regarding greening, laneways present a massive opportunity to the city as public space can be prioritised over transport movement. Space in a laneway is tight, but creative use of hardy planting can contribute to the overall connectivity of the green network and add to the mix of urban backyards in the central city.

Green elements:

Examples of greening elements appropriate to this space could include:

- Edge planting
- Green walls
- Planter boxes
- Small edible gardens for community or restaurant use
- Small / narrow specimen trees
- WSUD / rain gardens

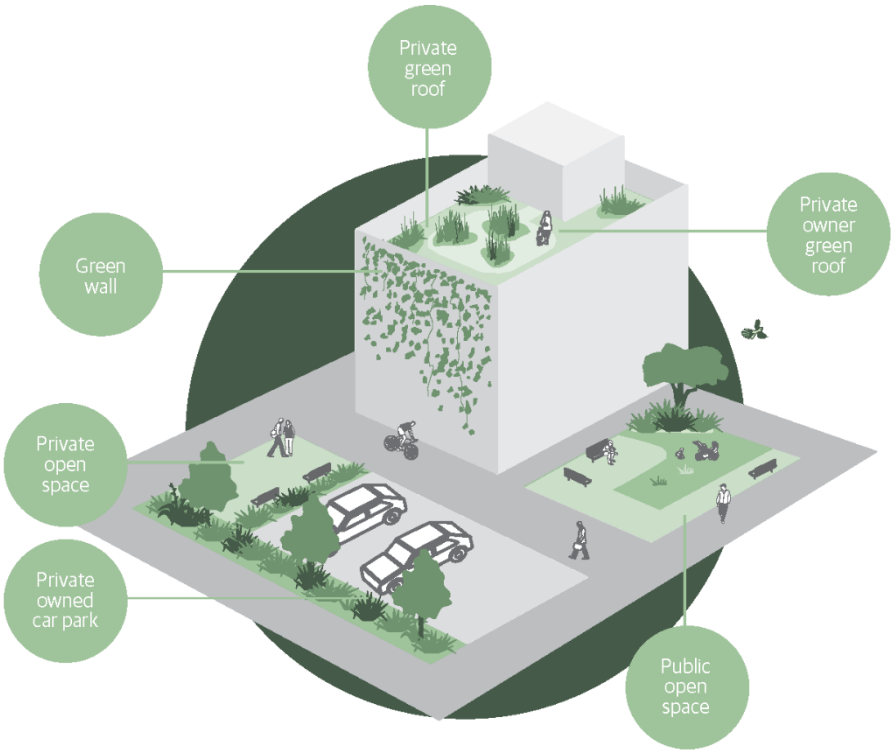
Case Study

Lombard Lane, Wellington (Cook Strait Properties + BECA + E3BW + LandLAB + WCC)

This project was a public/private sector partnership between Wellington City Council and Cook Strait Properties to regenerate Denton Park and surrounding streetscapes in and around Lombard Lane, Bond Street, and the Victoria Street interface. The central city block before the project had become rundown, underutilised, and vehicle-dominated, with safety issues affecting tenants and property owners. Investment in the public realm was needed to assure businesses of the lane's future occupation and bring public life back. A significant part of the public realm investment was the delivery of quality open space and streetscape greening.

Denton Park was an integral part. The project has been re-designed into an elevated lawn space that allows informal occupation by the public and a green outlook to the adjacent restaurant. The shared spaces of Lombard Lane and Bond Street have been reinvigorated with a greener outlook and now include street tree planting, garden beds, rain gardens, and informal planter pots that line the space.

Through this revitalisation Lombard Lane has become a busy pedestrian route and inspired a diverse mix of retail and hospitality businesses to open in the area, further activating the central city space.



Private Development

Private ownership is 49% of Wellington's central city land area.

On top of this figure, we expect 18,000 more people to live in Wellington's central city, which equates to 7900 - 8800 new dwellings.
This densification needs to be done well and requires a collaborative approach between the Council, local communities, developers, planners, designers, businesses, and private landowners.
While the District Plan and Design Guides are supporting and enabling greener outcomes, ongoing advocacy will be important.

Green elements:

Examples of greening elements appropriate to this space could include:

- Communal green spaces
- Entry gardens
- Backyards
- Publicly accessible green spaces
- Container balcony gardens
- WSUD
- Trees
- Edible/fruiting trees
- Small edible garden & composting
- Green walls
- Green roofs / roof terraces

50

Case Study

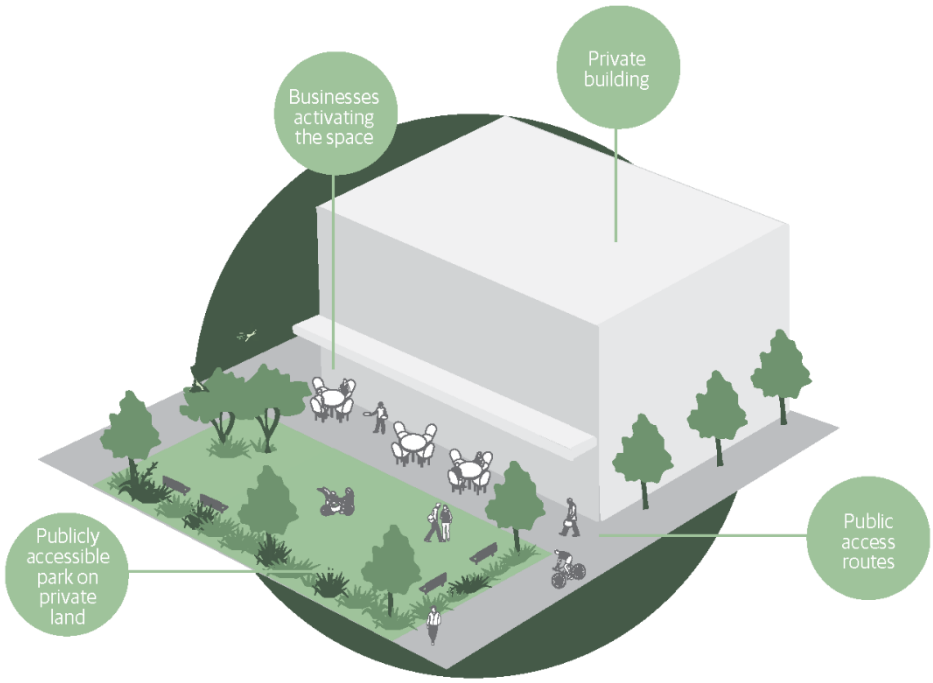
Urban Habitat Collective, Newtown, Wellington (Spacecraft Architects)

Spacecraft Architects are in the process of designing a co-housing apartment building for a group of Wellington families.

The concept of this apartment complex is about balancing private space with the ability to interact with and share amenities with neighbours. The shared spaces "...will include a shared dining & living area, and such other common areas as we agree in the design process. They will be integrated into the building to save costs and encourage community interaction. They are designed for daily use, are an integral part of the community, and are always supplemental to the private residences (Urban Habitat Collective)".

While the notion of co-housing is not for all, Spacecraft Architects have found a balance between private and shared outdoor space within this high-density development. The shared space between the apartment buildings is an excellent opportunity for greening and provides a sense of community. The balconies overlooking the shared green space provide the transition from private to shared and would allow families to be able to greet neighbours or check up on children playing below.

51



Public / Private Partnerships

Another enabler for greener outcomes is a partnership approach between public and private agencies.

This is a method of cooperation aimed to deliver projects that have been identified to impact the public realm. This type of cooperation aims to achieve mutual public and commercial benefits to both public and private partners.

In an economic climate where public funding is limited, engagement of a private partner can ensure partial financing of the project and therefore lift the burden off public funds. This can lead to better quality outcomes for a project. Public agencies such as the Council can then deliver on strategic goals they may not have achieved due to limited public funding.

Green elements:

Examples of greening elements appropriate to this space could include:

- Publicly accessible green spaces
- WSUD
- Trees & Edible/fruiting trees
- Small edible garden & composting
- Green walls
- Green roofs / roof terraces

52

Case Study

Michael Fowler Centre Car Park (Willis Bond, Athfield Architects)

This project is being delivered through an agreement between the Council and Willis Bond.

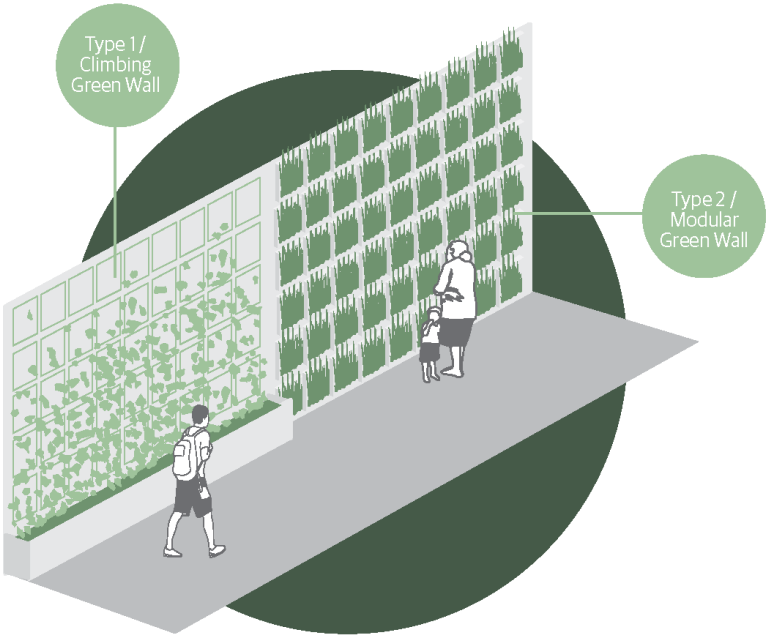
The proposal is to convert the Michael Fowler carpark in to a multi-storied, minimum 5-Star Green Star building with high quality, surrounding green space, and improved linkages to the waterfront.

An underdeveloped site, a carpark, is being developed to provide public benefit through improved greening and access to the waterfront, while the developer benefits due to higher foot traffic and improved amenity.

A ground lease of the site was approved in the Long-Term Plan to develop the site without generating cost to Council and ratepayers. The site is in an important location for the city as it connects the Te Aro Park area via Opera House Lane through to the waterfront.

Through the agreement, the Council was able to direct design outcomes for the development of open space and green space amenity. Council required Willis Bond in their design to retain the existing Pohutukawa trees, provide public open space and ensure a public connection is made to link the waterfront, Te Ngakau, and Cuba Street.

This model can have mutually beneficial outcomes for both the developer, the Council, and the public who use the space.



Green Walls

(Also known as living walls or vertical gardens).

Green walls come in two main types:

- A vertical structure is fixed to the wall of a building with climbing plants rooted in soil at ground level. The plants use the structure to climb up the wall from the soil containers below.
- The soil is fixed to the wall itself (often in modular units). The plants are rooted in the modular units, which are fastened to the façade using a structural system.

Green walls have many benefits for the central city as they

- Are fixed vertically and can be used in areas where space is limited (for example, in laneways or along narrow streets).
- Can improve the appearance of a building or structure (as well as prevent graffiti that can occur on bare walls).
- Diversify the suite of planted habitats and can act as stepping stones for species.
- Increase the amount of visible green in the city environment & improve the psychological health of residents.
- Improve air quality and reduce noise
- Help collect and filter stormwater from buildings and can be used for water sensitive urban design.
- Can be used for edible gardens.

Green elements:

- Plants should be chosen to suit the location and climate of the green wall
- Hardy climbing or cliff species (NZ has many native species that thrive on cliff faces and which have been trialed successfully in green walls)
- Hanging plants can also work - beans and tomatoes have been used in edible green walls (in sheltered, sunny sites)

54

Case Study

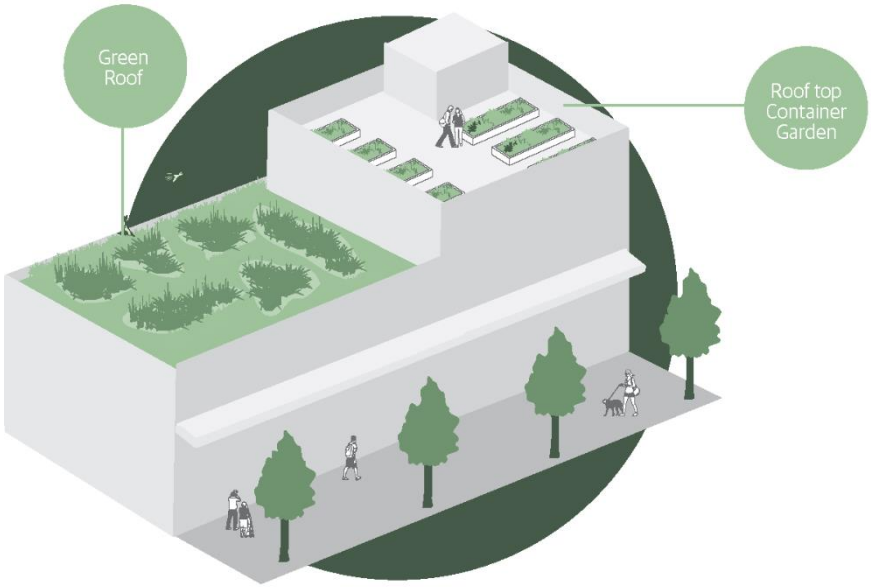
Civic Square Green Wall (Natural Habitats)

Designed by Natural Habitats, the 24sqm green wall was installed in the prominent site of Civic Square as an exemplar project and a way to motivate developers to install more around the central city.
The harsh coastal environment of the green wall's location demonstrates how green walls can thrive in Wellington - and gives confidence for future installations.
Careful plant selection is critical to achieving a thriving green wall. Species used in this example include the following hardy native species:

- Arthropodium "Te Puna" (rengarenga lily)
- Acaena novae "Zelandiae" (piripiri
- Chionochloa conspicua "Hunangamoho" (snow grass)
- Disphyma crassifolium (New Zealand ice plant)
- Fuschia procumbens (creeping fuschia)

The structure itself is a modular system and built to be self-watering and self-fertilising. The wall is moveable if required.
Further examples of green walls have also been rolled out throughout the central city by Wellington City Council through the laneways programme to green the street network when street trees are not achievable.

The design and ongoing management needs careful consideration for green walls to be successful.



Green Roofs

(Also known as living roofs or roof gardens).

Green roofs are a roof of a building or built structure that has been planted over a layered system of waterproof membrane, insulation, drainage, root barrier, and growing medium. A similar type (although not a genuine green roof) is a rooftop container garden. Rooftop container gardens are when plants are sown in containers or pots and placed or fixed on a roof/roof terrace. These are a more accessible and cheaper alternative to green roofs as they may not need the structural engineering and waterproofing required by genuine green roofs.
Green roofs have many benefits for the central city:

- They can be used in dense city environments where at-grade space is limited as they utilise the buildings.
- They slow and reduce stormwater run-off, which places less stress on the central city's stormwater infrastructure and an individual site and building's drainage system.
- Provide amenity and a green outlook for the building users and for other who are overlooking.

Green elements:

- Plants should be chosen to suit the location and climate of the green roof.
- Many hardy native plant species thrive in green roof conditions, including native ground covers, grasses, succulents, climbers, and creepers.
- Native species specifically are suitable as they promote native biodiversity and can be stepping stones for migrating fauna.

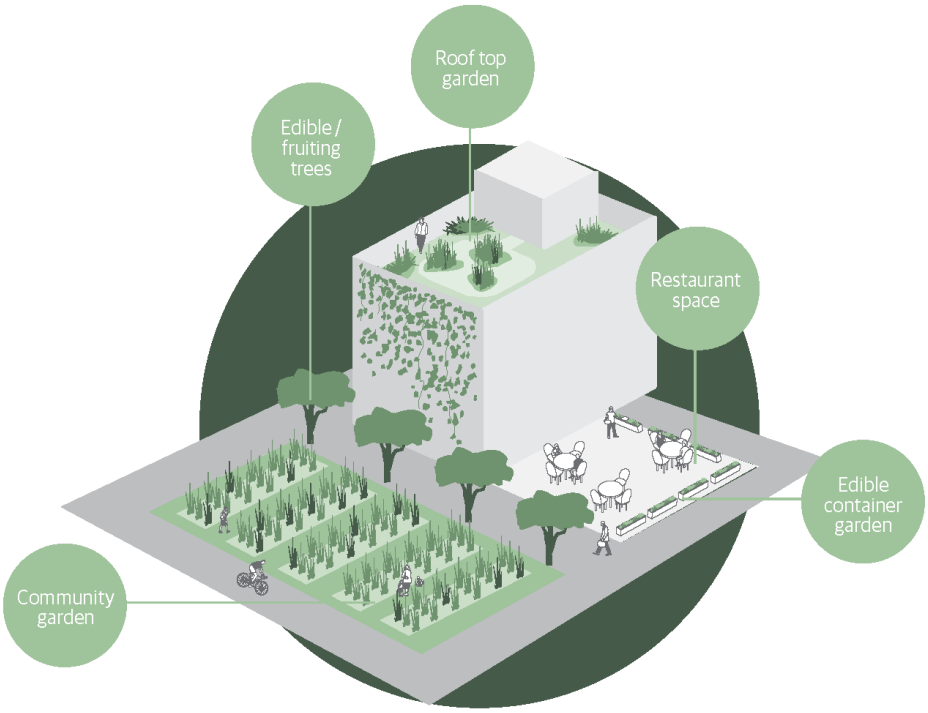
Case Study

Pipitea Plaza Green Roof, Wellington (Athfield Architects, Greenroofs NZ, RCP & Boffa Miskell)

Pipitea Plaza is a nine-storey five green star office building located at the edge of Pipitea escarpment (the historic harbour's edge), Pipitea Marae, and Old Saint Paul's church. The green roof is an integral part of the project and illustrates how green roofs are an excellent method of establishing ecological habitats in high-density, central city sites where on-grade space is limited.

The green roof is integrated into three of the building's stepped levels and flows visually from the roof terraces, the enfolding tree canopies, and green spaces. The roof can be viewed by staff within the building, providing visual interest from their office windows.

The planting selection is a striking but minimal mix of succulents, sedum, and grasses, punctuated by Riwaka Gold chip and Otaki pebbles. The species were selected to be tolerant to the harsh coastal conditions found on such an exposed site.



Good Food Green Spaces

Part of the Green Network Plan will be connecting with the broader sustainable food network for Wellington city by supporting initiatives to increase the amount and quality of green space used for food production in the central city. Examples of food production spaces include community gardens, urban farms, inner-city exemplar gardens, community composting hubs, vertical gardens, fruiting trees, and edible rooftop gardens.

Community food production spaces allow central city residents to participate in gardening where personal backyard space is unavailable.

These spaces are a way to diversify the green network and offer space for central city residents to connect and educate themselves / or increase capacity (either one works - your choice) in food growing and production. They also provide capacity to wrap food waste back into production at a local level. These spaces are part of the continuum of green spaces and foster a sense of community, improving the central city's mental and physical wellbeing, livability, and resilience.

While the central is constrained for space there are industrial & under developed sites that could contribute to local food production. These sites could be either temporary or permanent, and no longer fit for purpose. They include sites in Pipitea, car parking lots, road reserve and even rooftops.

Green elements:

Examples of greening elements appropriate to these spaces include:

- Edible / fruiting trees
- Community gardens
- Edible green walls
- Edible roof gardens
- Edible container gardens
- Rongoā rākau (medical plant / tree species)
- Berm gardens
- Urban farms

58

Case Study

Sole Food Street Farms, Vancouver

Sole Food Street Farms is a Vancouver-based organisation that has converted underutilised, contaminated land into productive urban farms. Their Main Street location, found on a previous petrol station site, was leased to the organisation by the City of Vancouver for one Canadian dollar per year is today one of the largest urban farming sites in North America. The site, before the project, had been vacant for over a decade due to soil contamination. Sole Foods Farms worked around the contamination issue by setting up a system of planter boxers to grow their extensive orchard, herb, and vegetable garden.

Soles Food Farming project provides numerous benefits to Vancouver's city, including offering jobs and training to members of the community with mental health and addiction issues. The city of Vancouver has strongly supported the project as it aligns with Vancouver's Greenest City Action plan. The plan stipulates a "Local Food" action where the goal is "Vancouver will become a global leader in urban food system (City of Vancouver)" with the associated target to: "Increase city-wide and neighbourhood food assets by a minimum of 50% over 2010 levels (City of Vancouver)".

60

Work Cited

Auckland Council. "Auckland's Urban Ngahere (Forest) Strategy. te Rautaki Ngahere Ā-Tāone O Tāmaki Makaurau."

Blaschke, Paul et al. "Green Space in Wellington's Central City: Current Provision, and Design for Future Wellbeing." New Zealand Centre for Sustainable Cities, 2019.

Boffa Miskell. "Pipitea Plaza." https://www.boffamiskell.co.nz/project.php?v=pipitea-plaza.

City of Melbourne. "Green Our City Strategic Action Plan " 2017. https://www.melbourne.vic.gov.au/sitecollectiondocuments/green-our-city-action-plan-2018.pdf

City of Melbourne. "Urban Forest Strategy " 2014. https://www.melbourne.vic.gov.au/sitecollectiondocuments/urban-forest-strategy.pdf

City of Sydney. "Greening Sydney Strategy " 2021. https://www.cityofsydney.nsw.gov.au/strategies-action-plans/greening-sydney-strategy

City of Sydney. "Urban Forest Strategy " 2013. https://www.cityofsydney.nsw.gov.au/strategies-action-plans/urban-forest-strategy

Gehl Architects. "Wellington 2021 Public Space Public Life Study " 2021.

GHB Landscape Architects. "Taasinge Square." https://www.ghb-landskab.dk/en/projects/taasinge-square.

Green Cities. https://thegreencities.eu/.

Heaphy, Charles. "Birdseye View of Port Nicholson." 1843. https://natlib.govt.nz/records/22875686

Hinge, Leslie. "Development Along Lambton Quay." 1920s. https://natlib.govt.nz/records/22719036

LandLAB. "Lombard Lane." http://landlab.co.nz/lombard-lane-denton-park.

London, Treeconomics. "Valuing London's Urban Forest: Results of the London I -Tree Eco Project." 2015.

Morgenroth, Justin. "Tree Canopy Cover in Christchurch, New Zealand. Report Prepared for the Christchurch City Council." University of Canterbury, 2017.

Morgenroth, Justin. "Tree Canopy Cover in the Green Network Plan Study Area, Wellington, New Zealand. Technical Report Prepared for Wellington City Council." University of Canterbury, 2020.

Morgenroth, Justin. "Tree Canopy Cover In Wellington City and Suburbs, New Zealand. report Prepared for the Wellington City Council." University of Canterbury, 2021.

Natural Habitats. "Civic Square Green Wall." https://www.naturalhabitats.co.nz/.

New Zealand Company. "Plan of the Town of Wellington." 1840. New Zealand Company. archway.archives.govt.nz/ViewFullItem.do?code=2431150

Norman, Edmund. "Te Aro Pā Looking Towards the Hutt River." 1842 - 1843. https://natlib.govt.nz/records/23026225

Selkirk, Gail. "Midland Park." 1983, p. Reference: EP/1983/3745.

Sole Food Street Farms. "Sole Food Street Farms." https://solefoodfarms.com/.

Spacecraft Architect. "Urban Habitat Collective." Wellington, New Zealand https://www.spacecraftarchitects.co.nz/Urban-Habitat-Collective.

Unknown. "Scene in the Botanical Gardens." ca 1900. https://natlib.govt.nz/records/22751152?search%5Bpath%5D=photos&search%5Btext%5D=wellington+botanic+gardens

Vancouver, City of. "Greenest City Goal: Local Food." https://vancouver.ca/green-vancouver/local-food.aspx.

Wellington City Council. "Central City Framework." 2010. https://wellington.govt.nz/your-council/plans-policies-and-bylaws/policies/central-city-framework

Wellington City Council. "Lower Cuba Street Shared Space." https://wellington.govt.nz/-/media/your-council/projects/files/goldenmile-lowercuba-info.pdf.

62

Wellington City Council. "Michael Fowler Centre Carpark Development." On 30 September 2021, the Council agreed to the key commercial terms on a 175-year ground lease for the Michael Fowler Centre carpark with Willis Bond., 2021.

Wellington City Council. "Our Capital Spaces: An Open Space and Recreation Strategy for Wellington " 2013. https://wellington.govt.nz/your-council/plans-policies-and-bylaws/policies/our-capital-spaces

-Wellington City Council. "Our City Tomorrow: Spatial Plan for Wellington City." https://planningforgrowth.wellington.govt.nz/draft-spatial-plan.

Wellington City Council. "Our Natural Capital: wellington's Biodiversity Strategy and Action Plan." 2015. https://wellington.govt.nz/your-council/plans-policies-and-bylaws/policies/biodiversity-strategy-and-action-plan

Wellington City Council. "Te Atakura - First to Zero: Wellington's Blueprint for a Zero Carbon Capital." 2019. https://wellington.govt.nz/environment-and-sustainability/climate-change/zero-carbon-capital

Wellington City Council. "Te Atakura - First to Zero: wellington City's Zero Carbon

Implementation Plan." 2020. https://wellington.govt.nz/environment-and-sustainability/climate-change/zero-carbon-capital

Wellington City Council. "Water Sensitive Urban Design: A Guide for Wsud Stormwater Management in Wellington ". https://wellington.govt.nz/environment-and-sustainability/water/stormwater/water-sensitive-urban-design-guide

Whites Aviation. "Urban Motorway." 1969. https://tiaki.natlib.govt.nz/#details=ecatalogue.630686

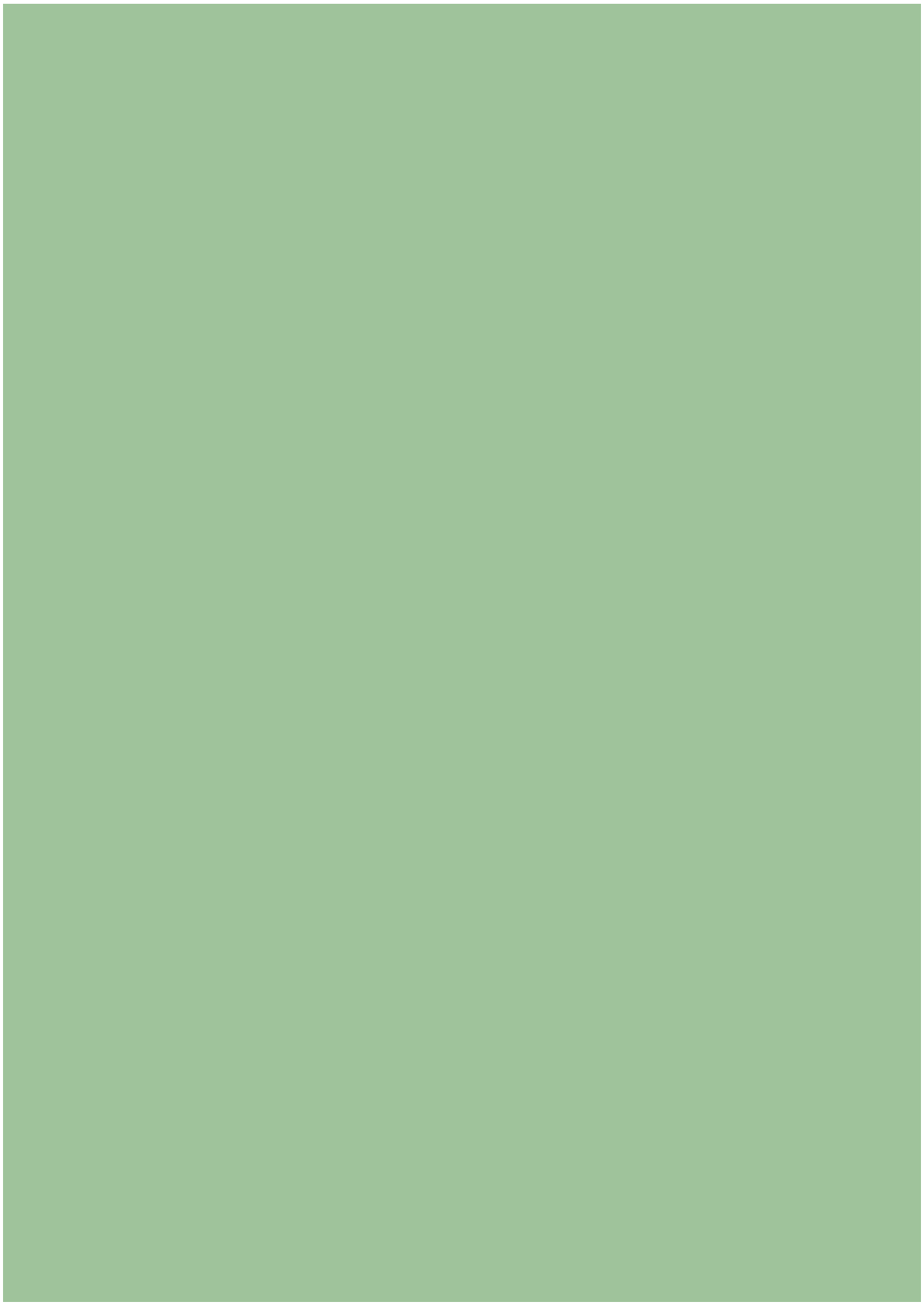
WMB Studio. "Parked Bench." https://wmbstudio.co.uk/parked-bench.

World Health Organisation. "Urban Green Space and Health: Intervention Impacts and Effectiveness." 2017.

Wraight + Associates. "Cobbleston Park." https://waal.co.nz/our-projects/urban/cobblestone-park/.

Wraight + Associates. "Waitangi Park." https://waal.co.nz/our-projects/urban/waitangi-park/.

(References to be further proofed)



TE WHANGANUI-A-TARA WHAITUA IMPLEMENTATION PROGRAMME AND TE MAHERE WAI O TE KĀHUI TAIAO

Kōrero taunaki
Summary of considerations

Purpose

1. This report to Pūroro Āmua - Planning and Environment Committee presents the Te Whanganui-a-Tara Whaitua Implementation Programme; and Te Mahere Wai o Te Kāhui Taiao (a Mana Whenua Whaitua Implementation Programme). The co-chairs of this whaitua committee will be present at this committee to support the attached papers.

Strategic alignment with community wellbeing outcomes and priority areas

	Aligns with the following strategies and priority areas: ☒ Sustainable, natural eco city ☐ People friendly, compact, safe and accessible capital city ☐ Innovative, inclusive and creative city ☐ Dynamic and sustainable economy
Strategic alignment with priority objective areas from Long-term Plan 2021–2031	☒ Functioning, resilient and reliable three waters infrastructure ☐ Affordable, resilient and safe place to live ☐ Safe, resilient and reliable core transport infrastructure network ☐ Fit-for-purpose community, creative and cultural spaces ☐ Accelerating zero-carbon and waste-free transition ☐ Strong partnerships with mana whenua
Relevant Previous decisions	The attached reports

Financial considerations

☒ Nil	☐ Budgetary provision in Annual Plan / Long-term Plan	☐ Unbudgeted $X

2. Any financial considerations will occur should actions be agreed and included in the Council planning processes.

Risk

☒ Low	☐ Medium	☐ High	☐ Extreme

Outline the overall level of risk, summarising the risk section from laterin the paper.

Author	Geoff Lawson, Team Leader Policy
Authoriser	Baz Kaufman, Manager Strategy and Research Stephen McArthur, Chief Strategy & Governance Officer

Taunakitanga
Officers' Recommendations

Officers recommend the following motion

That the Pūroro Āmua | Planning and Environment Committee:

1. Receive the information.
2. Note that officers will continue to work with Greater Wellington Regional Council to understand the impact of the Te Whanganui-ā-Tara Whaitua Implementation Plan and will report back on implementation to the Committee.

Whakarāpopoto

Executive Summary

3. The attached reports are the result of the whaitua programme led by Greater Wellington Regional Council (GWRC) for the Te Whanganui-a-Tara Whaitua.
4. The whaitua programme involves community-focused, collaborative planning processes to address land and water management issues in the Greater Wellington region. It assists Greater Wellington and local councils in carrying out the obligations under the National Policy Statement for Freshwater Management 2020 (NPSFM). The programme aims to improve the integration of activities and achieve better resource management practices which reflect local aspirations for waterways.
5. The Te Whanganui-ā-Tara WIP and Te Mahere Wai have been received by GWRC at its 23 September meeting and are now being presented to the local councils within the whaitua region.

Takenga mai

Background

6. Te Whanganui-a-Tara Whaitua Committee (the Committee) was the third of five whaitua committees for the Greater Wellington region, and first met in February 2019. Since that time, the Committee has deliberated on a pathway for improving water quality and the way water is managed in the Whaitua. The Council was represented on the Whaitua Committee by Councillor Rush.
7. In February 2020, Mana Whenua representatives established Te Kāhui Taiao to enable iwi to discuss, debate and decide their contribution in wānanga (formal discussions to share knowledge) in a culturally safe space.
8. Te Kāhui Taiao produced the Te Mahere Wai, a Mana Whenua Whaitua Implementation Programme (Te Mahere Wai WIP), specifically aimed at ensuring the voices of Taranaki Whānui and Ngāti Toa Rangatira sit alongside the voices of Crown partners and non-Māori communities.
9. The recommendations in the Te Whanganui-a-Tara Whaitua Implementation Programme (WIP) (Attachment 1) cover both regulatory provisions and non-regulatory programmes. The regulatory provisions will be included progressively by into the Regional Policy Statement and Natural Resources Plan by GWRC by way of plan changes. The non-regulatory programmes will be implemented over time, and GWRC will work in conjunction with mana whenua partners, city councils, Wellington Water, and other organisations to implement these.
10. The Committee was informed by the Mayoral Taskforce Report and recommendations generally align, while taking them further with dates for delivery.
11. Te Mahere Wai WIP (Attachment 2) also covers both regulatory provisions and non-regulatory programmes necessary for Greater Wellington to achieve requirements that

demonstrate Mana Whenua decision-making in freshwater management and compulsory national values for mahinga kai.

12. Te Mahere Wai WIP records the priorities and recommendations of Taranaki Whānui and Ngāti Toa Rangatira as Mana Whenua of Whaitua Te Whanganui-a-Tara. It describes Mana Whenua values and establishes a Mana Whenua assessment framework, called Te Oranga Wai for measurement and management of freshwater, receiving coastal waters and mahinga kai in the whaitua.

13. The WIP and Te Mahere Wai WIP are created to be read, implemented and woven together to ensure the objectives and recommendations in both documents are reflected in changes to the Regional Policy Statement and Natural Resources Plan and in the non-regulatory programmes.

Kōrerorero

Discussion

14. The implementation recommendations arising from the whaitua process are detailed and comprehensive.

15. The next step is for the documents to be reviewed by GWRC officers to determine the steps required for implementation and provide responses to all recommendations in the WIP. This will then be used to inform the creation of the reference group and the whaitua implementation structure.

16. The regulatory recommendations in the WIP and Te Mahere Wai will inform the plan change processes for the Regional Policy Statement and Natural Resources Plan in 2022 and 2024.

17. The non-regulatory recommendations will be further developed by GWRC in conjunction with relevant external organisations including the Council.

18. Any subsequent plan changes that come from the WIP and Te Mahere Wai will be considered as the Council plans its 3 waters investment and urban development planning. Dependent on the Councils response to this there may be financial implications and would need to be considered as part of future LTP processes.

Ngā mahinga e whai ake nei

Next actions

19. The Committee may receive these documents noting that this is a GWRC programme of work noting it expresses a range of expectations for local councils to address freshwater management across the region.

20. The Te Whanganui-a-Tara Whaitua Implementation Programme and the Te Mahere Wai o Te Kāhui Taiao (a Mana Whenua Whaitua Implementation Programme) will be formally launched on 9 November at Te Papa.

21. Council officers will work with GWRC to understand the implementation and impact of the WIP so that it can be considered in future planning processes.

Attachments

Attachment 1. Whaitua Te Whanganui-a-Tara Implementation Programme

Attachment 2. Te Mahere Wai o Te Kāhui Taiao

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Whaitua Te Whanganui-a-Tara Implementation Programme

Recommendations for improving the health of fresh and coastal waterbodies towards Te Mana o te Wai in Whaitua Te Whanganui-a-Tara/Upper Hutt, Lower Hutt and Wellington

Report prepared by the Whaitua Te Whanganui-a-Tara Committee 2021

Whaitua te Whanganui-a-Tara

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Our story

In 2019, the members of the newly established Whanganui-a-Tara Whaitua Committee from Wellington, Upper Hutt and Lower Hutt, accompanied by Greater Wellington Regional Council (Greater Wellington) Councillors and staff members, gathered on Matiu Island to meet for the first time. Led by Taranaki Whānaui, with Ngāti Toa Rangatira at their side, a pōwhiri to welcome the committee was followed by a full day wānanga. This process would set the tone for what we wanted to achieve collectively for our communities, how we wanted to work together, and the partnership approach we wanted to demonstrate with Mana Whenua within our committee.

Collectively, we agreed to establish a way of working that would recognise a bicultural and culturally safe way of working that would authentically give effect to our job to restore Te Mana o te Wai ki Whanganui-a-Tara. This, in turn, resulted in a uniquely bicultural operating framework grounded in te ao Māori principles and values that resonated perfectly with our work to protect the mana of our freshwater streams, rivers, lakes and wetlands.

The following outlines the committee's aspirations, values and operating principles that have guided how we have worked together over the past three years. Over time, members have departed, and new members arrived. However, our dedication to the purpose and way in which we have worked together remained the same. This Tiriti partnership approach was adopted by all members of Te Whaitua te Whanganui-a-Tara and represents a shared long-term vision for freshwater (Te Pūtake), sets the genealogy of the whaitua (Pepeha), and then identifies a set of protocols for how we intended to work with each other as a collective.

TE PŪTAKE/ THE ORIGIN

The mauri of Whaitua te Whanganui-a-Tara and the communities who live within it is nurtured, strengthened and able to flourish.

Kei te pūtake o te whaitua o te Whanganui-a-Tara tōna mauri mana motuhake... hei oranga mō te katoa.

TE WHAITUA MO TE WHANGANUI A TARA PEPEHA / TRADITIONAL STATEMENT DEFINING TE WHANGANUI-A-TARA REGION

No te kawa ora te mauri o te wai
From the ultimate life principles is the vitality of water.
Ka tupu te taurikura o ngā iwi, nga uri, ngā ruranga katoa
From this the nourishment of the iwi, their descendants and those who call this place home is provided.
Ko tātou katoa ngā tangata tiaki o ēnei wai!
For we all are the responsible guardians of these waters
Ngā wai o te Whaitua o Te Whanganui-a-Tara
The waters of the Te Whanganui-a-Tara Whaitua
E rere mai
Flow within the boundaries of
Turakirae ki Rimurapa
Turakirae to Rimurapa

Mai Rimurapa ki Remutaka
From Rimurapa to Remutaka
Mukamuka ki Te Ra Whiti
From Mukamuka to Te Ra Whiti
Pipinui ki te Ra Tō
To Pipinui across to te Ra Tō

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NGĀ KAWA / THE PROTOCOLS

Te Kawa Ora/ The Natural Systems of Life

Ko te Te Whanganui a Tara Whaitua te mātāpuna o te ora: The waters give life.

The waters of Whaitua Te Whanganui-a-Tara are the source of spiritual and physical sustenance for all life within its waters and lands.

Te Kawa Wai/ The Natural Systems of Water

E rere kau mai ngā wai iti, ngā wai roa, ngā wai nui, ngā wai puna, ngā wai tuku kiri mai i ngā pae maunga ki Tangaroa: The waters flow from the mountains and hills to the sea.

Within Whaitua Te Whanganui-a-Tara is a living system of interconnected waterways, streams, rivers, springs and groundwater that flow from the hills to the sea.

Te Kawa Tiaki / The Protocols of Care

Ko tātou ēnei wai, ko tātou ngā tangata tiaki: We are these waters, we are responsible for their care.

The communities of the whaitua are united with, depend on and have responsibility for the waters of Whaitua Te Whanganui-a-Tara, the health of which is vital to all that live within it.

Te Kawa Honohono / The Protocols of Unity

Ngā manga iti, ngā manga nui e piripiri kau ana, ka tupu ngā awa, ka tupu te taurikura o ngā tangata katoa: The small and large streams that flow into one another form the numerous rivers, harbour and coast which provide nourishment for all.

The Te Whanganui-a-Tara Whaitua is woven from the land, the waters and the life within it. It transcends its component threads and cradles all who live within it.

Note that these statements are not a direct translation between te reo and English.

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Partnership and shared leadership from the community up

The programme to restore and improve water quality and ecosystem health in Whaitua Te Whanganui-a-Tara is formed by two documents.

This **Whaitua Te Whanganui-a-Tara Implementation Programme** has been developed and draws on the views of many people who call Te Whanganui-a-Tara home. It aims to ensure that all of our connections and values for freshwater and receiving coastal waters are sustained.

Te Mahere Wai is a Mana Whenua Whaitua Implementation Programme for Te Whanganui-a-Tara. It is a companion document that describes mana whenua values and establishes a mana whenua assessment framework, called Te Oranga Wai, for the measurement and management of freshwater, receiving coastal waters and mahinga kai in the whaitua. It represents a Te Tiriti o Waitangi partnership response to enhance the voices of local mana whenua – Taranaki Whānui and Ngāti Toa Rangatira.

It is important to acknowledge this unique approach that the committee has taken. The creation of a mana whenua enhancing and culturally safe space for mana whenua to discuss, debate and reconcile and develop a mana whenua voice signals a maturity for a Te Tiriti o Waitangi partnership model. It is a first of its kind for Te Upoko o te ika and our hope is that the process influences future policy development processes.

Both documents have been developed within a context of significant system change across New Zealand's public policy landscape, including the Resource Management Act 1991, local government reform and a new national direction to protect, improve and lift the mana of our freshwater rivers, streams, lakes and wetlands.

Both the Whaitua Implementation Programme (WIP) and *Te Mahere Wai* should be considered and actioned together because they share an inter-dependency of knowledge, information and priorities.

The committee collectively agree that the implementation of both reports will require collaboration between the Crown, Greater Wellington, territorial authorities (local councils) and mana whenua. This will mean the sharing of power and resources, enabling stronger Te Tiriti o Waitangi partnerships. Importantly, we are strongly of the view that Greater Wellington will need to act quickly to build its organisational capability and confidence to fulfil its Tiriti obligations, responsibilities and commitments, starting with authentic relationships with iwi and Māori.

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Foreword from co-chairs

The waters of Te Whanganui-a-Tara are central to our lives. They define the landscapes we cherish, provide life and wellbeing to all living things, including us who live in Wellington, Lower Hutt and Upper Hutt. We want to see their mauri (life force) restored - as healthy waterways and connected communities.

We acknowledge those who have worked for decades as kaitiaki in our urban and rural environments, working for healthy wai (water) at many levels. Those at the grass roots who have planted streambanks, removed rubbish from our awa (rivers) and our foreshore, those who have led change within their businesses and communities, and those who have campaigned for stronger regulations and policy change. Their work set the scene for the National Policy Statement for Freshwater Management which led to the Greater Wellington Regional Council's (Greater Wellington) whaitua process being based on community and mana whenua involvement. Our work is also informed by, and builds on, the work of the Ruamāhanga and Te Awarua-o-Porirua Whaitua Implementation Programmes as well as Ngāti Toa Rangatira's corresponding Statement.

Whaitua Te Whanganui-a-Tara Committee represents a partnership between mana whenua, the wider community, our territorial authorities and Greater Wellington. A partnership approach will also be fundamental for implementing this Programme. We especially endorse the opportunity for councils to better partner with mana whenua – in particular to support a more holistic approach to improving waterway health and community wellbeing.

This Whaitua Implementation Programme is a call to action. It calls for a paradigm shift in the way we view water (wai), our relationship with water, how we value water and its life maintaining properties.

Our three waters networks are crumbling due to under-investment, population growth is forecast to put more pressure on water use and supply, and climate change will exacerbate the challenges we face, with more extreme weather events predicted to occur much more frequently. Many of our waterways are in poor condition, some hidden, piped underground, out of sight out of mind. A continuing decline in water quality and culture of consumption sets up our children and grandchildren for a bleak and insecure future.

Sites of cultural significance including traditional mahinga kai / food gathering areas have been significantly degraded, having disproportionate impacts on different communities including mana whenua and tangata whenua.

Our long-term vision is for all waterways in Wellington, Lower Hutt and Upper Hutt to be restored to a state of Wai Ora (healthy water) within 100 years. We envisage many water bodies will achieve this state much earlier. This Programme sets out the first steps on that journey. There will be some quick wins but there are also some significant challenges to even 'hold the line' of current water quality before improvements can be seen.

Aotearoa is experiencing a shift in how we view water. Government requires councils to stop the decline in water quality and to drive improvements within a generation. Mana whenua recognise the loss of health and mauri of local waterways that has occurred over generations. New government policy introduced in September 2020 recognises the life maintaining properties of water for all life and ecosystems, including human beings. The principle of Te Mana o te Wai puts the health of a waterbody

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first, human health needs second, followed by recreational, economic and other needs. Change is now necessary, for the good of our children, grandchildren and following generations.

The Whaitua Implementation Programme is a companion document to Te Mahere Wai – a unique, indigenous body of work that more fully articulates the aspirations of Taranaki Whānui and Ngāti Toa Rangatira. Te Mahere Wai is a landmark document and the two interdependent documents should be considered together.

This Programme sets out recommendations to move us toward our vision of healthy water / Wai Ora. Our recommendations are ambitious and will require changes to current ways of operating and current levels of investment. However, they also seek to balance pace with practicality and equity. We acknowledge the range of barriers that exist to implementation and the lack of information currently available on the health of our waterways. We also acknowledge the power of individuals, whānau, and collaborative community action to help move us toward those outcomes.

We now call on Greater Wellington, Wellington City Council, Hutt City Council, Upper Hutt City Council, and all organisations with a statutory role as kaitiaki of freshwater in our whaitua, to drive action under this Programme.

This document presents a clear voice for water in this whaitua and a unique opportunity to make change. Alongside Te Mahere Wai, it is a founding document for future work and we expect councils to report progress against it over coming years.

We thank and acknowledge those in our communities who had their say in this process – providing feedback online, completing surveys, attending hui (meeting) on this kaupapa (important matter) or sharing your views with a committee member or council officer. Your direction has guided us in the development of our work.

The Whaitua Committee was supported by a project team of dedicated, passionate people from Greater Wellington, Wellington, Hutt and Upper Hutt City Councils, Wellington Water, Mātauranga Māori providers and mana whenua. Thank you to each and every one of you, we could not have delivered this taonga (treasure) without your hard work.

It is a privilege and a responsibility to serve on a committee tasked with the opportunity to drive change for our communities, the environment and future generations. Our fellow committee members are a diverse group of community representatives, mana whenua representatives, regional and city councillors. This is 'heart' work and you brought your whole selves to the mahi, listening to your communities, leaning in and collaborating for the good of all. Your passion, dedication, tenacity and understanding will be rewarded as the Programme is implemented and the changes start to manifest. We thank you now on behalf of generations to come for the benefits they will derive because of the work we have done up front.

This Programme is just the beginning. It is a first step in charting the course toward healthy waters across Wellington, Lower Hutt and Upper Hutt. We look forward to the journey ahead.

Sam Kahui and Louise Askin, Co-chairs, Whaitua Te Whanganui-a-Tara Committee

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Contents page

Final Content Subject to Formatting and Publishing

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Executive summary

The Whaitua Te Whanganui-a-Tara Committee is made up of members of the Wellington and Hutt Valley communities, and representatives of mana whenua and local councils. It was tasked with advising the Greater Wellington Regional Council (Greater Wellington) on how to give effect to the National Policy Statement for Freshwater Management 2020 (NPS-FM), which requires actions to be taken to maintain or improve the health of water and give effect to Te Mana o te Wai. The advice of the committee sits alongside (and is informed by) *Te Mahere Wai*, which has been prepared by and for mana whenua to express their aspirations and needs in the context of the NPS-FM.

Te Mana o Te Wai requires the integrated management of freshwater in line with the principle of Ki Uta ki Tai (from the mountains to the sea). This goes beyond the alignment of storm, waste and drinking-water management and must include flood management practices that shape our waterways, commercial allocation, changing land use, water sensitive urban design (WSUD), the active role of mana whenua, and many other critical elements.

Eighteen spatial areas have been identified within Whaitua Te Whanganui-a-Tara for integrated management to recognise the specific mana and individual needs of different water bodies. We hope that local communities will develop a sense of ownership and connection for these areas, as well as for each awa within them, as they learn about their names, values, mana whenua and community history, and the challenges faced.

All awa in all spatial areas are set a long-term vision of wai ora for all water-quality indicators and have a pathway of short-to-medium term steps towards achieving that vision. Steps beyond that have been left for the next generation to determine, so they can reflect on their own aspirations and contexts and all we learn through the implementation of this Whaitua Implementation Programme (WIP).

A paradigm shift is needed to achieve these steps towards wai ora, honour Te Mana o Te Wai and prioritise the health of waterbodies as required by the NPS-FM. Our recommendations are intended to address the past, look to the future, and reset our multi-generational relationship with water to one of care and respect. As part of this, we have deliberately framed our recommendations as 'managing people's impacts on water' instead of the dominant 'freshwater management' approach.

In summary, the committee's recommendations, which sit alongside those in *Te Mahere Wai*, require a range of actions that will:

- Strengthen community connections with water
- Avoid toxic algal blooms
- Address sources of pollution and reduce future risks
- Balance the needs of nature and people in the places we live
- Ensure we are responsible and respectful in our use of water
- Develop the workforce needed to realise Te Mana o te Wai
- Make clear where we expect central government to act
- Improve information available for better decision making in the future.

These recommendations have been informed by extensive work over the best part of three years. This has included community input (through meetings, public events and online channels), scientific and expert input (though technical reports, presentations and direct advice), mana whenua input (through

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meetings, the direct involvement of Te Kāhui Taiao members, and *Te Mahere Wai*), and extensive technical support and expertise from officials in all councils in the whaitua.

Upholding Te Mana o te Wai is a responsibility of councils (mana kaunihera), mana whenua (mana whakahaere) and all in the community (mana tāngata). All of these have a role to play in the successful implementation of these recommendations. However, the most immediate responsibility sits with Greater Wellington to make the amendments to the Regional Policy Statement and the Proposed Natural Resources Plan that are necessary to give our recommendations regulatory weight. Greater Wellington's investment decisions and operating model are also important to creating the enabling conditions for mana whakahaere and mana tāngata to be effective in their respective roles.

Ongoing transparency and accountability to mana whenua and the community on the implementation of recommendations and progress towards wai ora and Te Mana o Te Wai is essential. The catchment journeys for each of the 18 spatial areas provide an incomplete baseline, so mana whenua have begun the development of a kaupapa-based measurement framework. In time, this work will inform a holistic Te Oranga Wai framework that is expected to be the primary way communities understand the state of water and progress towards 'wai ora everywhere'.

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Committee purpose and decision-making context

The role of our committee is to advise Greater Wellington on how to give effect to the NPS-FM in Whaitua Te Whanganui-a-Tara. This is one of five whaitua in the Wellington Region. Whaitua is a te reo Māori word for 'place', and this whaitua is the geographic area defined by the water catchments across Wellington, Lower Hutt and Upper Hutt. We were charged with developing recommendations that express, and create a pathway towards, Te Mana o te Wai and the aspirations held by the communities and mana whenua. The scope of our work includes all freshwater bodies and the impacts of freshwater on the harbour and coast. The process is explained in more detail in Appendix 1.

Our committee of 16 comprises community members and representatives of councils and mana whenua. We committed to a bicultural process from the start, establishing co-chairs and sustaining a focus on learning how to bring this commitment to life throughout the process. Together, and through talking with communities, we bring different voices and worldviews into our work. We have also been supported by a team of experts, including scientists, planners, territorial authority advisers, three waters advisers, facilitators, mana whenua and te ao Māori advisers. Appendix 1 contains more information about our membership.

The implementation of the NPS-FM was the catalyst for our work and provides important clarity and tools. We agreed early on, however, that it should not overly constrain our approach. We believed we could provide advice that was consistent with the NPS-FM and better reflects the needs and aspirations of mana whenua and the communities of Whaitua Te Whanganui-a-Tara. The NPS-FM has been updated during our work, and we anticipate it will be again in the future as learnings from local efforts (such as ours) and from national level work are considered.

While our recommendations have been developed at the request of Greater Wellington, they are also relevant to Taumata Arowai, the Ministry for the Environment and all central agencies that have a role in how society cares for water. In some cases, change at the national level is needed to realise Te Mana o te Wai, and we acknowledge the reforms already underway for resource management, local government and three waters management. As reforms progress, we expect national decision makers and any new agencies to recognise this Whaitua Implementation Programme (WIP) and *Te Mahere Wai* as the statements of what needs to be delivered for Whaitua te Whanganui-a-Tara.

The ultimate test is how our recommendations are put into action. We are concerned that progress in implementing the Ruamāhanga and Te Awarua o Porirua WIPs has been slow. There is little public awareness of these documents or transparency about actions or outcomes. Maintaining political commitment requires mechanisms for citizens and mana whenua to hold councils to account for implementing the WIPs.

In Te Whanganui-a-Tara, territorial authorities (local councils) fund Wellington Water to manage the three waters network, primarily through the collection of rates and developer contributions. There has been under-investment in three waters infrastructure for decades. While councils are responsible for the failure to properly plan and fund the network, funding constraints have also had an impact. Implementing all our recommendations in the timeframes specified will require new approaches to funding for three waters.

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Of course, public costs ultimately fall on ratepayers and taxpayers, and there will also be costs beyond these to some individuals as taking greater care of private impacts on water becomes the new norm. This will be hard for some people, so support through the transition will be needed. It is particularly important that the approach to implementing our recommendations avoids increasing inequities in people's wellbeing. While some changes will initially feel like extra costs, they really reflect a bill we haven't been paying in the past, but which is necessary now to sustain healthy waterways across generations.

We have tried to set an ambitious, but achievable, pathway based on what we currently know. Our recommendations are part of a 100-year journey and include actions to be implemented in the short term (10 years), in a generation (20-30 years) and in the long term (over 30 years) for more intractable or costly problems. We recommend that mana whenua and the community review progress every 10 years and are enabled when necessary to advise councils on adjustments to improve the pace of progress.

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Te Mana o te Wai – putting water first

Ka ora te wai – If the water is cared for

Ka ora te whenua – The land will be nourished

Ka ora te whenua – If the land is nourished

Ka ora te tangata – The people will prosper.

Te Mana o te Wai is the fundamental concept underpinning the National Policy Statement for Freshwater Management 2020 (NPS-FM) and is the guiding kaupapa reflected in the kawa-based vision at the start of this document and described by mana whenua in *Te Mahere Wai*.

As part of this, the NPS-FM directs decision making to prioritise:

- **First**, the health and wellbeing of water bodies and freshwater ecosystems.
- **Second**, the health needs of people (such as drinking water).
- **Third**, the ability of people and communities to provide for their social, economic and cultural wellbeing, now and in the future.

Te Mana o te Wai presents us with an opportunity to prioritise the health of freshwater for the first time. It demands different thinking about our relationship with water. We cannot take water for granted and treat it as just another resource to be managed, used and degraded. We cannot consider the health and wellbeing of water bodies and freshwater ecosystems as an afterthought whenever we want to do something. Te Mana o te Wai requires that the importance of water in our lives is asserted and demonstrated through our actions.

Upholding Te Mana o te Wai is the shared responsibility of councils (mana kaunihera), mana whenua (mana whakahaere) and all in the community (mana tāngata). Our recommendations expect and support each of us to play our part. In doing so, we enhance our own mana and that of the water.

Council leadership – mana kaunihera

The level of power held by councils within our regulatory systems impacting on water makes their leadership and action critical. Greater Wellington has responsibility for meeting the requirements of the NPS-FM, including setting regulatory limits and targets for water that will drive the action needed to achieve mana whenua and community outcomes for water.

All four councils in the whaitua are expected to lead community transformation in the way water is valued and treated, as set out in the recommendations in this document. Some of these recommendations are also relevant in Porirua, which relies on this whaitua for its water supply. Regulatory frameworks need to be implemented and, importantly, enforced to ensure that all activities are managed for their effects on water. Three waters infrastructure must be maintained to a high standard so that Te Mana o Te Wai is not compromised. Councils are expected to show leadership on their own land and in their operations.

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Iwi leadership – mana whakahaere

The leadership of Taranaki Whānui and Ngāti Toa Rangatira is critical to achieving the transformative shift required to achieve Te Mana o Te Wai in Whaitua Te Whanganui-a-Tara. Many of the core constructs of Te Mana o Te Wai (ki uta ki tai, mauri, mahinga kai) rely on mana whenua interpretation and leadership, and require equitable resources and support that enables their participation to be embedded in whaitua management.

Tangata Tiriti members of this committee acknowledge that current barriers to Mana Whakahaere reflect failures over many generations to bring Te Tiriti o Waitangi to life in our regulatory and governance systems. We have worked to help break down rather than perpetuate these barriers through our work and our recommendations, but more is needed, as expressed in *Te Mahere Wai*.

Community leadership – mana tāngata

The waters of Whaitua Te Whanganui-a-Tara are a core part of our landscape and identity and we all have a responsibility for their care. Decisions that affect water quality and quantity are made by individuals, families and businesses every day. Many people are already working individually and in groups to do better for water, and every action makes a difference. But we need to bring care for water to the forefront of our daily lives and support more people to live and work in ways that value and restore the environment

Better connecting communities with, and empowering them to care for, water depends on leadership, support and long-term investment in education and action, as set out in our recommendations. The implementation of these recommendations is intended to increase community participation and leadership, grow people's ability to take actions that care for water, and support collaboration across catchments and the whole whaitua so that water, communities and future generations can flourish.

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Understanding our relationship with water – freshwater values

Our kawa direct us to the importance of spatial, social and intergenerational equity, which means that all waterbodies (from small streams to larger rivers, aquifers, wetlands, lakes, estuaries and coastal waters) need to be thriving in all awa. Upholding Te Mana o te Wai means striving for wai ora everywhere. We may need to prioritise in the short term to make progress achievable, but it is not possible to trade off the mana of one water body for another in the long term.

What this means for freshwater values is set out in Appendix 2: Our community's freshwater values in Whaitua Te Whanganui-a-Tara and in *Te Mahere Wai*.

Values which apply to some extent to all waterbodies in this whaitua include:

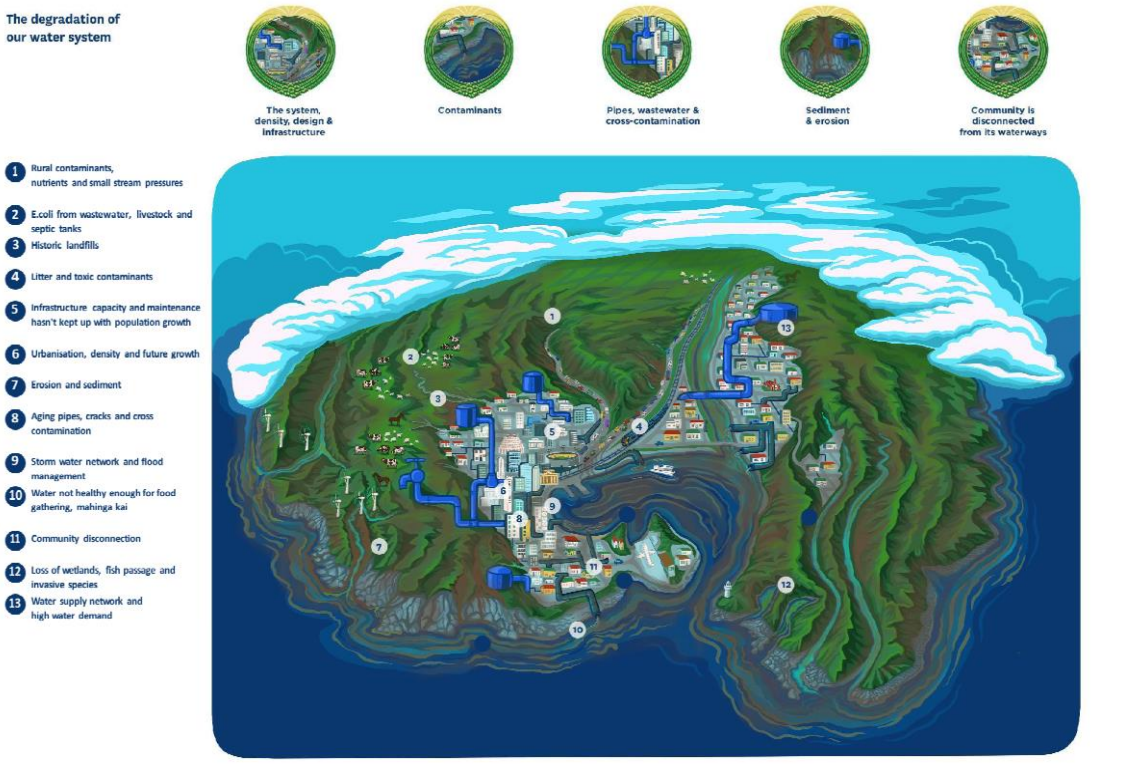
- Ecosystem health
- Mahinga kai
- Threatened species
- Natural form and character
- Māori customary use and wai tapu
- Drinking-water supply
- Human contact (primary)
- Community connection
- Animal drinking water
- Commercial, industrial use and the production of food and beverages
- Transport and Tauranga waka
- Fishing.

In the section 'The pathway to healthy water' we show catchment by catchment how (in many cases) the state of water quality is currently far from our aspirations for supporting our values. There are signs of hope for what can be achieved when we put water first, but water quality is still getting worse in many places, and there are challenges still to come through climate change and urban growth. The scale of the task means we need to start rapidly increasing the pace of action to halt the causes of decline and start noticing improvement.

Within the chapter of each catchment area are a set of tables that set out clear pathways of staged targets for improvement in each catchment's journey from current state to wai ora state for each of the water-quality attributes in the NPS-FM. The timeframes set for each step of the pathway are intended to increase the pace of action across the whaitua, while recognising what can realistically be achieved by when. In some places, achieving wai ora will be a 100-year journey and actions beyond our recommendations will need to be determined by future generations.

The different journeys reflect the reality of different starting points and pressures, natural cycles and the need for prioritisation. All actions can't be implemented everywhere all at the same time, especially when a significant investment of money and the time of skilled people is required. Where we have prioritised spatially, this reflects:

- The trends in water decline
- The risks of inaction to public health, including drinking-water sources
- The significant values for mana whenua
- Impact levels
- Inequities in the benefits people receive from their local waterways.


The degradation of our water system
The system, density, design & infrastructure
Contaminants
Pipes, wastewater & cross-contamination
Sediment & erosion
Community is disconnected from its waterways
1 Rural contaminants, nutrients and small stream pressures
2 E.coli from wastewater, livestock and septic tanks
3 Historic landfills
4 Litter and toxic contaminants
5 Infrastructure capacity and maintenance hasn't kept up with population growth
6 Urbanisation, density and future growth
7 Erosion and sediment
8 Aging pipes, cracks and cross contamination
9 Storm water network and flood management
10 Water not healthy enough for food gathering, mahinga kai
11 Community disconnection
12 Loss of wetlands, fish passage and invasive species
13 Water supply network and high water demand


Bring our water back to health.
We are more in tune and respectful of our environment. Mātauranga Māori leads management. Integrated planning between mana whenua, communities and council.
Thriving Environment
Fixing the System
Living connected to water
Restoration
Pipes are fixed
Contaminants are reduced
Information for communities
Water Supply & Demand
1 Flood management makes room for the rivers
2 Future proof infrastructure, fix broken pipes
3 Business and trades best practices, and to use low impact products
4 Storm water treated at the source. More porous surfaces to stop it running straight into the ocean
5 Fencing streams from livestock, planting streams
6 Rainwater tanks for homes
7 Diversity of farming and diverse rural landscapes.
8 Council enforce rules and standards
9 Water sensitive urban design everywhere
10 Swimmable, visible urban streams
11 'Warrant of fitness' on pipes in buildings and houses
12 Mahinga kai - restoring local food sources
13 People knowing not to put contaminants into stormwater
14 Urban design is sensitive to waterways and no zinc or contaminants
15 Threatened fish species visible and resilient
16 Build to accommodate rain and enjoy it
17 Better education and connection with water, streaming streams
18 Restoring wetlands
19 Forestry operations and land use using best practice to manage sediment
20 Supporting local communities to be kaitiaki. All streams have kaitiaki
21 Mana of marae, mahinga kai, intergenerational knowledge exchange
22 Harvesting of tuna for cultural events

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Actions to enhance Te Mana o te Wai – our recommendations

The evidence we have received tells us that water will continue to degrade without a step change in action. This does not reflect mana whenua and community values or meet NPS-FM requirements, but is a sign that our systems and actions are not yet showing enough care for water. It is a sign that decision making isn't putting the water first as required by Te Mana o te Wai.

The systems and norms that have led to the decline of water are well engrained in society and decision making. We believe that a shift in mindset is key to turning things around – from managing water as a resource, to managing the impacts of people on water. From waiting for proof that something is a problem, to taking care to avoid anything that could become a problem. After all, not having a problem in the first place is always cheaper then fixing something that is broken. It better respects the water as well as future generations to come.

Turning things around is a complex problem to solve because of the wide range of causes and responsibilities. This is an 'everybody problem' and all of us have a role to play in solving it. Our recommendations complement those in *Te Mahere Wai* and are focused on actions that:

- Strengthen community connections with water
- Avoid toxic algal blooms
- Address sources of pollution and reduce future risks
- Balance the needs of nature and people in the places we live
- Ensure we are responsible and respectful in our use of water
- Develop the workforce needed to realise Te Mana o Te Wai
- Make clear where we expect central government to act
- Improve information available for better decision making in the future.

The impacts and solutions will look different in different places for different people, but each of us has a duty of care to minimise our impacts and this is reflected in our recommendations. By acting together, we'll see improvements in community health, social connections and the health of our streams, harbour and coastline, and secure our water's future for generations to come.

The scale of improvement needed, even just to achieve the minimums set in the NPS-FM, means that there will be significant funding and workforce challenges to implement all recommendations everywhere. This has been recognised in the timeframes we have set for achieving different actions, but it is also why our recommendations cover matters that are about supporting successful implementation, rather than just focusing on direct action to improve water.

As our recommendations are implemented, further decisions will be needed about where planning and investment needs to be directed first.

A vital component of the regulatory response is incorporating the relevant aspects of this document, including the future attribute states, into the Regional Policy Statement and Proposed Natural Resources Plan (PNRP) to support our recommended trajectory.

Transparency about what is happening and ongoing opportunities for involvement by the community are key to successful implementation. To achieve this, the recommendations below sit alongside those in *Te Mahere Wai* about mana whenua participation and giving effect to mana whakahaere responsibilities.

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Our first set of four recommendations address the need for both a regulatory response to this WIP and *Te Mahere Wai* and for ongoing community participation in implementation.

Number	Recommendation
1	Greater Wellington adds all 'first steps' attribute states (short term and generational) identified in the catchment chapters of the WIP into the PRNP as part of the 2022 and 2024 plan changes.
2	Greater Wellington works with mana whenua to complete Te Oranga Wai attributes for freshwater and coastal receiving environments for inclusion in the PNRP as part of the 2022 and 2024 plan changes.
3	Greater Wellington proactively communicates the WIP and *Te Mahere Wai* with stakeholders, community groups and partners through a variety of channels to ensure there is adequate awareness in our whaitua to support ongoing dialogue and accountability for implementation.
4	Greater Wellington establishes a community-led reference group tasked with monitoring progress on the implementation of WIP for Whaitua Te Whanganui-a-Tara and ensures that the council is reporting on progress to the wider community in meaningful ways.

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Strengthen community connections with water

Water is a defining feature of our whaitua, encompassing our harbour, coast, rivers and lakes, which are interconnected with aquifers under the ground. Water is part of our everyday life in many ways – from turning on the tap each morning to jumping in a river on a hot day, and everything in-between. However, with the increasing urbanisation of our whaitua in the past decades, we've also reduced water's presence in our landscape (such as piping small streams or covering them with landfills) and made it easy to forget how much we depend and impact on it.

If we're to restore our waterways to good health, we all need to play our part. Each journey begins by acknowledging the problem, which develops to understanding, builds with commitment, and results in communities that are willing and enabled to take action to change our future. At the heart of it all is relationships – with water and with each other. We are all connected, and only when our waterways are clean and healthy will the community be the same. Understanding this is an important part of growing the next generation of children to become kaitiaki and stewards, helping communities act in ways that care for water and develop skills to respond and adapt to change.

Many community groups are already championing and volunteering time on behalf of rivers, streams and environments in our whaitua, but they are often disconnected from each other and what is happening elsewhere. Practical and specialist support is needed to bring people together, increase their knowledge of the state of their water, and help identify the biggest opportunities to make a difference. Community groups are also well placed to lead wider community education as they know what matters locally.

Council monitoring can only go so far. Activating 'citizen science' is therefore key to providing accurate information to councils to target local changes, developing ways to share the story of streams (whether piped or above ground), and leading conversations in local areas on what people want to change and how to do it. It also benefits landowners, who can apply local science and local knowledge in their role as kaitiaki of their land and water.

To strengthen community connections with water our recommended actions focus on:

- **Connecting communities with waterways and piped streams**, so that people get to know their local streams, including those now under the ground.
- **Bringing water into teaching and learning**, so that our tamariki and mokopuna grow their understanding of local waterways and what it means to care for water.
- **Supporting catchment-based planning and local action**, so that community groups have information, support and connections to lead local solutions for local problems and strengthen relationships with water in their community.

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Number	Recommendation
Connecting communities with waterways and piped streams	
5	Greater Wellington, mana whenua and territorial authorities work with communities located around piped and above-ground streams to share those streams' stories through visual images, signs, sculptures, temporary artworks or other interactive ways that the communities design.
6	Greater Wellington works with mana whenua to name unnamed streams, including those currently piped underground, starting with large streams and then smaller streams within the whaitua (by 2026).
7	Greater Wellington and territorial authorities add information to property Land Information Memorandum (LIM) reports about wetlands and streams that a property drains to and its pathway to the sea; the source of the property's water supply; and the treatment of its wastewater.
Bringing water into teaching and learning	
8	Mana whenua, community groups and Greater Wellington take advantage of opportunities to get involved in the refresh of the National Curriculum, which guides teaching and learning in schools, with a focus on how well it identifies and grows capabilities that will help realise aspirations for communities that care for wai and te taiao.
9	Mana whenua, community groups and Greater Wellington work with early learning centres, schools and kura to develop local resources and supports that help teachers and kaiako to provide teaching and learning that connect tamariki with their local waterways, including piped streams, and grow their understanding of the interconnectedness of the wellbeing of our communities and Whaitua Te Whanganui-a-Tara.
Supporting catchment-based planning and local action	
10	Greater Wellington, mana whenua and territorial authorities establish services to support new and existing catchment or community groups (by 2025), including for: • Providing access to easy-to-use data from all relevant sources, including citizen science, especially data that is relevant to each group's locations and needs • Inspiring and supporting the formation of new groups • Funding ongoing organisational and technical support, including lab analysis • Supporting citizen-led science and monitoring with appropriate training and tools • Mātauranga monitoring • Providing specialist support (such as engineering and legal support, help with navigating local government politics, and communication guidance) • Supporting catchment coordinators for catchment-scale projects and help with project management, people facilitation and fundraising (it includes tapping into the wider volunteer base) • Offering guidance on where to put the best efforts and take actions, consistent with the kawa and Te Mana o te Wai.

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11	Greater Wellington creates cross-whaitua structures and services that support a coherent and connected approach to local action knowledge-sharing. These should include: • Spatial and catchment-level planning that helps coordinate efforts aimed at meeting Te Mana o te Wai and community goals, and makes roles and responsibilities clear • Community-to-community knowledge exchange and connecting groups • The provision of transparent and clear mechanisms for accessing and allocating funding and services, including expert knowledge • The provision of frameworks and supports that give community groups confidence that they are working in the interests of mana whenua • A strategic approach to the use of council support services (such as Mountains to Sea Wellington) • Providing a single contact point for questions and advice for all the agencies involved.
12	Greater Wellington and mana whenua develop resources (by 2024) that community groups can use and adapt for their own communication with local communities, to help build understanding, connections and involvement that complement messages and campaigns by councils and water agencies. Specific themes to include are: • Where drinking water comes from, and the relationships between activities in the Hutt Valley and risks to the Waiwhetū aquifer • Awa as tīpuna, living entities of distinctive mana and whakapapa • Our responsibility to respect the awa and their mana, and act on this in our behaviour with water • The state of our waterways, including for different places • Action being taken, including for different places • Actions people can take, including those specific to their local areas.
13	Greater Wellington, mana whenua and territorial authorities partner with communities in developing catchment plans, co-designing their journeys and sharing the delivery process and roles required to achieve Te Mana o te Wai and local outcomes. This will help groups to know where to put their best efforts and provide clear resourcing strategies to follow through with their plans.
14	Greater Wellington works with mana whenua and catchment groups to make data easily available and accessible in a user-friendly way, including through the use of aggregated data.
15	Greater Wellington provides more specific, local information on water quality to communities – through making existing data more readily available and collecting new data, including via citizen science programmes, Greater Wellington monitoring programmes and the integration of the two (where appropriate).

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Avoid toxic algal blooms

The increased size and frequency of toxic algal blooms in Te Awa Kairangi/Hutt River and our other major rivers is a direct risk to dogs and humans. These organisms are a major public concern and make those who visit the rivers wary of going to, using and enjoying them, often at the time of year when they're at their best.

Our vision for Te Awa Kairangi/Hutt River is that toxic algal blooms will be rare and the river will be in balance with the land and its communities, including people. At all points in its journey from the mountains to the sea we'll be comfortable engaging with the river to nourish ourselves physically and spiritually.

The ecological and physical systems that influence the growth of toxic algal blooms are complex. Many of our recommendations in this WIP are expected to help reduce their frequency and size by reducing nutrient availability. But we just don't yet understand enough about how to best avoid creating the conditions in which toxic algal blooms can thrive and more research is needed (see Recommendation 111).

Communities, mana whenua and Greater Wellington need to continue working closely together on how best to enable people to continue connecting with the awa they love. This means avoiding interaction with toxic algal blooms when they occur in the short term, while working towards a future where they are no longer a problem.

Number	Recommendation
16	Greater Wellington, with mana whenua and communities, develops a toxic algal bloom action plan that includes: • Management actions • A monitoring plan specific to toxic algae • Research priorities • Climate change adaptation • A communications approach that supports community and mana whenua visions and outcomes.

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Address sources of pollution and reduce future risks

Water is life. It nourishes us and all of nature around us. It is essential to our modern way of life, which is why humanity's impacts on water must be looked at closely. Too often our precious water is inadvertently contaminated by human activities, even when we rely on the very same water to sustain us. Living a good life doesn't need to threaten the mauri of water, but it does require a significant step up in how we manage ourselves and our impacts. We need to address current sources of pollution and find ways to minimise the chance of pollution occurring in the future. Our recommendations are focused on the most important issues affecting the health of water in this whaitua:

- Appropriate waste and stormwater management
- Appropriate rural land use practices
- Council leadership to ensure best practices that do right by water
- Avoiding and managing risks from the use of contaminants
- Identifying and addressing risks to water from historic contaminated land
- Paying extra respect to water sources.

Appropriate waste and stormwater management

Water is used to transport our waste away in ways that protect public health. Protecting the mauri of water requires water used for this purpose to re-join the waters of Te Awa Kairangi/Hutt River or Te Whanganui-a-Tara and the coast in the same state that it entered the system. Systems for transporting wastewater should only deposit the wai mate (and the human waste it contains) at its destination – a septic system in rural areas or a sewage treatment plant in urban areas. However, we've found that there are several problems with both urban and rural wastewater systems in our whaitua.

Wellington's water crisis is well known and has attracted considerable media attention. A great deal of work is needed to bring our infrastructure up to scratch, while at the same time the population in our whaitua is only going to grow – adding more stress to an already creaking three waters system and raising the risk of pipes bursting and contaminating the environment.

This situation has arisen because the pipes in the urban wastewater system haven't been maintained properly. They're now failing regularly, allowing wai mate to enter the soil and our natural waterways. A pipeline grading assessment (where grade 1 pipes are in very good condition and grade 5 in very poor condition) shows that 32 per cent of the network of wastewater pipes in our whaitua – around 550km – is in grade 4 or 5 and in urgent need of repair or replacement.

The same thing may be happening to pipes in private ownership, which we understand comprise more than half of the wastewater network. While we have very little information on the condition of those pipes, many are likely to be in their original condition and (based on our knowledge of the public network) leaking wastewater into the environment.

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There are situations where new public pipelines are being installed and connected to existing private pipelines, of which some are more than 60 years old. This highlights the importance of ensuring that the three waters infrastructure on private land is up to standard, otherwise we'll only solve half the problem. The entire network, both public and private, needs to be improved.

Stormwater has also been allowed to enter the wastewater system, to such an extent that the wastewater pipes can't cope when it rains. To prevent this from causing wastewater to flood back into houses, engineers have built overflows that deposit the excess water (including human waste) into our streams and rivers. We consider this unacceptable.

In areas that do not have access to municipal wastewater systems, landowners often use septic systems to treat waste from their property. Many of these systems are old (some date from the 1940s or even earlier) and have not been adequately maintained. As a result, these septic systems often leach untreated waste into the soil, from which the contaminants can enter water bodies. This situation is not acceptable and should not continue. We believe that landowners with septic systems need to have access to information about the proper maintenance of these systems, and that Greater Wellington should investigate just how big the impacts of leaching systems are.

Because overflows or leaching of untreated wastewater is a major environmental and cultural issue, our recommendations set a tight timeframe for repairing and replacing leaky wastewater pipes in both public and private ownership. Our recommendations include:

- **Preparing plans within stormwater and wastewater resource consents**, so that there is a clear investment pathway for addressing issues in the municipal network.
- **Repair and renewal of the public wastewater pipe network**, so that people can be confident that pipes are fit for purpose and will keep wastewater out of local waterways.
- **Stopping wastewater overflows**, so that our systems reflect the complete unacceptability of sewerage polluting our waterways.
- **Identifying and fixing degraded pipes and cross-connections in private parts of the network**, so that urban property owners are supported to take responsibility for problems associated with their own pipes.
- **Creating safety nets to avoid new problems arising in the future**, so that we can be confident that private pipes are being maintained as well as the public ones.
- **Reducing sludge to landfill**, so that dealing with solids left over from wastewater treatment doesn't come at the expense of the natural environment.
- **Ensuring rural wastewater systems are well maintained**, so that rural property owners are supported to take responsibility for problems associated with their septic systems.

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Number	Recommendation
Preparing plans within stormwater and wastewater resource consents	
17	Greater Wellington amends regulatory documents to require the relevant three waters agency to develop a stormwater strategy (by 2023), within the global stormwater network resource consent, to contribute to achieving the relevant first steps in each of the catchment tables under the heading 'Journey from current state to wai ora'.
18	Greater Wellington amends regulatory documents to require the relevant three waters agency to develop a strategy/plan (by 2023), within the wastewater network resource consents, to contribute to achieving the relevant first steps in each of the catchment tables under the heading 'Journey from current state to wai ora'.
Repair and renewal of the public wastewater pipe network	
19	The relevant three waters agency increases the number of repairs and renewals in the public wastewater infrastructure (aligning with the strategy in Recommendation 18) to ensure that: • By 2033, no more than approximately 22 per cent of the wastewater pipe network will be worse than grade 3 (average condition) • By 2040, no more than ~12 per cent of the wastewater pipe network will be worse than grade 3 (average condition) • By 2050, no wastewater pipe assets will be below grade 3, and asset management plans will be actively identifying and replacing ageing pipes or pipes in poor condition.
Stopping wastewater overflows	
20	Territorial authorities and the relevant three waters agency prioritise the repair and replacement of public wastewater assets that lead to overflows on private or public land.
21	A target of zero wastewater overflows (by 2060) is achieved, except in infrequent situations (such as pump failures or rainfall events) with a >25-year average return period (ARI).[1-2] To meet this goal, we recommend implementing six-yearly targets for reducing wastewater overflows set out in the relevant three waters agency's 2024 wastewater strategy and resource consent. These overflow reductions must align with our obligation to achieve the relevant first steps in each of the catchment tables under the heading 'Journey from current state to wai ora' and the primary contact recreation national bottom lines set by central government by 2040.
22	The relevant three waters agency investigates, and reports to, Greater Wellington and mana whenua (by 2022) on the feasibility of pre-treating wastewater overflows and any locations where this could be prioritised for upcoming Long Term Plan reviews.

[1] While we appreciate flooding events can result in wastewater contamination in the environment, we should not accept this as 'normal practice' for the wastewater network. By 2060, we expect the wastewater network to be of such a standard that it does not leak wastewater and that overflows only happen under unplanned or extreme events.

[2] A 25-year average return period (ARI) is a storm of a certain size and duration that could be expected to occur once in a generation, which has a four per cent probability of occurring every year. While historical records indicate this storm should occur every ~25 years, it could occur more than once over this period, but the probability would be low. Similarly, a 100-year ARI storm could occur twice in one year, but the probability would be very low.

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23	The relevant three waters agency increases its monitoring of wastewater overflows across the network, with the aim of identifying faults through increased data collection (by 2025). The identified faults are to be repaired in line with the timelines specified in Recommendations 19, 27 and 28.
Identifying and fixing degraded pipes and cross-connections in private parts of the network	
24	Greater Wellington amends the relevant regulatory documents, and the relevant three waters agency increases its investigations of, the public/private water networks (by 2030) to identify all cross-connections (wastewater connected to stormwater) and inflow faults (stormwater connected to wastewater). The assessed pipe conditions and any faults are to be recorded on the relevant properties' LIMs and updated as repairs are made.
25	Greater Wellington amends the relevant regulatory documents on, and the relevant three waters agency increases its investigations of, the public/private water networks (by 2040) to identify all groundwater infiltration (to the wastewater network) and wastewater leakage (exfiltration). The assessed pipe conditions and any faults are to be recorded on the relevant properties' LIMs and updated as repairs are made.
26	All territorial authorities provide financing mechanisms (subject to appropriate terms and conditions) no later than 2024 to assist landowners to fix faults in private laterals. These mechanisms could be deferred payments collected through rates, or territorial authorities could recover the costs when the properties are sold. Territorial authorities and the relevant three waters agency also provide supporting advice to private landowners on their rights and responsibilities regarding private laterals.
27	Territorial authorities apply their existing powers under the Local Government Act 1974 and Health Act 1956 to ensure landowners repair all faults related to cross-connections (wastewater to stormwater) and inflows (stormwater to wastewater) within two years of their identification. Cross-connection and inflow fault repairs on private land may be undertaken by the relevant three waters agency. However, the costs are to be covered by the landowners either directly or through other funding mechanisms (see Recommendation 26).
28	Territorial authorities, through the relevant three waters agency, apply their existing powers under the Local Government Act 1974 and Health Act 1956 to ensure that: • All identified leaky private wastewater laterals, including infiltration and/or exfiltration leaks, are fixed within five years of identification. Enforcement action is to be taken if the fixes are not made in this timeframe • By 2045, all identified leaky private wastewater laterals have been fixed and an ongoing cycle of maintenance is in place A database is developed and maintained of the conditions and ages of all private and public assets in the three waters network.

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Creating safety nets to avoid new problems arising in the future	
29	By 2025, territorial authorities and the relevant three waters entity develop a process (such as a 'warrant of fitness'), through which the condition of private laterals is assessed at the point of a property's sale or when a building consent application is lodged. The costs are to be covered by the property owners. The condition of these laterals, and any faults revealed through the process, are to be recorded on the properties' LIMs with the information updated as repairs are made (aligning with the timelines in Recommendations 27 and 28). Once the repairs are complete, an ongoing cycle of inspection and maintenance should be established.
30	By 2024, territorial authorities establish a complete set of regulatory and policy measures that: • Require landowners to repair all failed private laterals and record these failures on their LIMs until the repairs are complete Provide a funding mechanism to support landowners in making these repairs (such as instalments on their rates bills or councils recovering the costs when properties are sold).[3]
Reducing sludge to landfill	
31	Relevant three waters agency investigates methods (by 2025) to significantly reduce sludge going to landfills from wastewater treatment plants.
Ensuring rural wastewater systems are well maintained	
32	Greater Wellington and territorial authorities provide good-practice information and advice to septic tank owners. They also develop a programme for regular septic tank investigations undertaken in rural/lifestyle areas in the whaitua, with the aim of improving their understanding of the impact of septic tanks on water quality, ecology and public health. Where septic tanks are identified as affecting water quality, ecology or public health, territorial authorities or Greater Wellington are to work with the relevant landowners to reduce these effects by repairing, replacing or enhancing their septic systems and having an ongoing cycle of maintenance.

[3] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 23.

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Appropriate rural land use practices

Rural areas should be thriving, productive places where freshwater is valued and water quality is the best it can be. Many rural landowners are already working hard to achieve this, but the challenge involves many properties across a complex terrain, and it is often hard to gauge the wider impact of improvements made at the property/farm level.

The biggest impacts from activities on rural land are high levels of sediment and *Escherichia coli (E. coli)*. Clearances of vulnerable land in the past have increased the amount of sediment entering waterways from hillsides and stream-bank erosion, and *E. coli* is entering streams via a range of human, livestock and avian sources. As in our urban environment, an integrated catchment management approach, which is informed by local monitoring information and involves the whole community, will be most effective for identifying contaminant hotspots and targeting the effort involved.

There are a number of national rules already being rolled out around farm planning and stock exclusion, so we have focused our attention on local needs. Landowners affected by national rules will need support to target implementation well in the context of their land and the wider catchment. But an approach of only applying the national rules in our rural catchments is not enough to uphold Te Mana o te Wai and. Just as we expect of landowners and businesses in our urban environment, all rural landowners need to be taking action to reduce impacts on water and enhance the environment.

Plantation forestry can have benefits for water quality, but it also brings a high risk of sediment loss in the years after harvesting, particularly in the headwaters of Te Awa Kairangi/Hutt River. Unfortunately, the evidence we have heard suggests that good-practice sediment management in line with national rules is not yet being consistently used. This suggests a need to ramp up investigations of, and prosecutions for, poor management with greater accountability to communities affected by the consequences of poor practice.

Our recommendations include:

- **Supporting implementation of national regulations and beyond,** to better protect waterways, small streams and manage contaminant hotspots through a local community catchment approach.
- **Developing local monitoring information,** to better inform Freshwater Farm Plan development.
- **Supporting best practice and monitoring compliance of forestry operations**, so the amount of sediment entering our waterways is reduced.

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Number	Recommendation
Supporting implementation of national regulations and beyond	
33	Greater Wellington provides sufficient Land Management advisory resources and funding to: • Support the implementation of actions at property and catchment levels to achieve catchment plan objectives • Support landowners' implementation of national stock exclusion rules • Help link farmers' action (including through their Freshwater Farm Plans) to catchment plans, and help small block owners to link their actions to catchment plans • Support the implementation of Freshwater Farm Plans to ensure quality delivery of farm planning services and effective connections to catchment plans • Promote the uptake of best management practice, and ensure open communication between landowners and Greater Wellington to keep best practices up to date • Integrate advice to landowners with other relevant objectives to achieve co-benefits (e.g., carbon sequestration, biodiversity)
34	Greater Wellington supports landowners to exclude livestock from waterways by: • Helping them to develop and implement practices that minimise stock access to streams not covered by regulations • Investigating the specific impacts of horses on water quality and considering further stock exclusion regulations if they are identified as a significant source of contaminants.
35	Greater Wellington investigates alternative incentives (e.g., rates rebates) to increase landowners' uptake of revegetation projects, including projects using native plant species. This applies particularly to landowners with marginal and erosion-prone land (to reduce erosion and sediment loss), wetlands (for nutrient stripping, etc), and rural catchments generally (to slow flood flows further down the catchment).
Developing local water-quality information	
36	Greater Wellington supports the development of property-specific information to inform Freshwater Farm Plan development, particularly for managing diffuse discharges, CSA (Critical Source Area, i.e., hotspot) management, riparian planting (to complement stream fencing regs), and management methods for those streams where stock exclusion rules do not apply.
Supporting best practice and compliance of forestry operations	
37	Greater Wellington provides enough staff and resources to: • Work with forestry groups (New Zealand Farm Forestry Association, New Zealand Forest Owners Association) and contractors to provide proactive advisory support that includes ensuring all forestry operators are aware (by 2023) of relevant regulatory requirements and good practice • Ensure all forestry operators in the whaitua are monitored for compliance with the National Environmental Standard for Plantation

	Forestry (NES-PF) and other relevant requirements from 2023 onwards, and share this monitoring information with the community • Take enforcement action on non-compliance.

Council leadership to ensure best practices that do right by water

People and organisations throughout New Zealand have key roles in improving the quality of our freshwater and its environment, from those who work with water or have responsibility to protect freshwater, to the plumbers, developers and industries that rely on it to run their businesses.

Greater Wellington has an important role in leading the way in best-practice environmental management for green spaces, farms and forests, public transport systems and its own vehicle fleet. Other countries are phasing out copper brake pads with the aim of improving their water environments and preventing poisoning in rivers and streams – councils need to lead by example in using copper-free alternatives in their car fleets.

Councils also need to consistently expect all land use and activities to put water first. We know there are many examples of excellent professional practice, but there are still areas for improvement. Te Mana o te Wai is the responsibility of us all, so all urban development needs to use water sensitive urban design (WSUD). Land use and activity rules designed to protect water need to be enforced, with consequences based on the principles of restorative justice for water and local communities. *Te Mahere Wai* also includes a proposed restorative justice approach.

To increase council leadership to ensure best practices that do right by water, our recommended actions focus on:

- **Councils leading by example**, so that they are not asking others to do what they are not doing themselves, and to support an ongoing focus on evolving to better practices.
- **Consistent enforcement of rules that protect water**, so that there is transparency and growing trust that people will be held to account if they're not playing their part.

Number	Recommendation
Councils leading by example	
38	Greater Wellington and territorial authorities: • Are exemplars of good practice on all council-owned land and infrastructure, including contaminated land, farms, forestry land, wetlands and golf courses. • Provide information on how good-practice decisions have been made. • Report publicly on their year-on-year improvements.
39	Greater Wellington, territorial authorities and the relevant three waters agency set an example by ensuring that (from 2022), their fleet vehicles are renewed with copper-free brake pads or replaced by vehicles with these pads.

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Consistent enforcement of rules that protect water	
40	Territorial authorities review and strengthen their plumbing consent and code compliance processes (by 2024), to ensure there are clear accountabilities and consequences for compliance transgressions and ultimately a low risk of future illegal cross-connections.[4]
41	Greater Wellington and the relevant three waters agency engage with and express the importance of environmental consequences to the Plumbers, Gasfitters and Drainlayers Board, relevant professional regulatory bodies and industry organisations. These organisations shall: • Together improve their systems of communication and reporting for disciplinary complaints • Become active and consistent in reporting discovered evidence of sub-standard tradesperson work, especially for instances of illegal wastewater to stormwater connections • Apply disciplinary action as set out under the defined offences in section 89 of the Plumbers, Gasfitters, and Drainlayers Act 2006.
42	The relevant three waters agency works with industry organisations to reinforce or improve standards, communication and training for best industry practice. Priority should be given to industries where there is high interaction with the stormwater and wastewater network (e.g., painters and cleaners).
43	Greater Wellington investigates and considers adopting new mechanisms to improve compliance (such as restorative processes and requiring bonds for earthworks and forest harvesting).

Avoiding and managing risks from the use of contaminants

Some contaminants can have toxic and visual effects on freshwater and coastal environments. While we have many recommendations that look at changing our practices and increasing levels of treatment (such as implementing WSUD under the 'Making water sensitive urban design the norm' section), these recommendations do not specifically target the sources of all contaminants.

The recommendations below recognise that some practices (such as washing cars or cleaning paint brushes) can have detrimental impacts on environmental quality when not performed correctly and they still occur on a regular basis. Also, many old materials (such as roofs) can have an ongoing effect on water quality until they are replaced or treated.

[4] Adapted from WCC Mayoral Task Force Review on three waters, Recommendation 22.

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Number	Recommendation
44	Greater Wellington and mana whenua work with territorial authorities to ensure that all large green spaces (e.g., parks, school grounds, golf courses) are managed to reduce the infiltration of fertiliser into groundwater and waterways, with plans in place (by 2023) that include public reporting.
45	With input from the relevant three waters agency (by 2026), Greater Wellington and territorial authorities develop or amend regulatory instruments to help reduce the risk of contaminants entering the stormwater system.[5] These could include: • Painting and/or replacing old roofs to reduce the prevalence of heavy metals • Washing paint brushes or cars • Treating runoff from carparks and roads.
46	Greater Wellington and territorial authorities develop a scheme to support the painting or replacing of large-scale high zinc-yielding roofs, which could include education, advice and incentives.
47	Greater Wellington and territorial authorities develop a scheme to reduce the impacts on waterways from the washing of cars.
48	Greater Wellington and territorial authorities investigate options to minimise the impacts of agrichemical sprays on waterways and report on options (by 2025).
49	Greater Wellington, territorial authorities, the relevant three waters agency and relevant industry groups develop and implement a pollution prevention programme. This will be outlined, delivered and monitored through various mechanisms. The programme must: ▪ Raise the awareness of the public about what they can do to reduce their impacts on harbour and stream health ▪ Promote and incentivise industry good management practice, targeting high-risk land-use activities that contribute relatively high levels of contamination ▪ Identify and target priority areas for contaminant reduction based on the identification of catchments that contribute to localised hotspot areas ▪ Investigate opportunities to enable change by streamlining regulatory processes and removing barriers to businesses and industries initiating change ▪ Work with specific industries/suppliers to increase understanding around risks from exterior chemical cleaning products, with an aim to reduce usage through point-of-sale warnings and changes in product care advice.
50	Territorial authorities and the relevant three waters agency work together in high-risk areas to increase and prioritise regular street sweeping and sump clearance. They also need to investigate other opportunities to capture and clear contaminants from stormwater drains, including those to increase awareness and education with residents and businesses about how they can reduce contaminants (e.g., litter ending up in waterways).

[5] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 12.

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Identifying and addressing risks to water from historic contaminated land

Our whaitua has dozens of closed sites (such as factories, quarries, landfills and cemeteries) that have been contaminated by chemicals. Even though these facilities are not operating any more, some may still pose a risk to water quality due to leaching of contaminants which can harm our streams, rivers, aquifers and harbour. Current activities can also be contaminating land (e.g., landfills), but the risk of these activities to water quality and aquatic ecosystems is closely managed through resource consents.

There are likely to be many contaminated sites in our rohe that we don't know about. We need to understand the size of the challenge ahead, so councils must prioritise working with landowners to find these sites, identify their effects on water quality, and try to stop any contaminants affecting the environment. This is important for private land, because landowners might not have caused the contamination, may not be aware of it, or may not have the funds to remediate the land. Local knowledge and vision will be vital to this process. Councils should also lead by example on publicly owned land by taking steps to manage the risks to water quality, particularly from closed landfills.

Number	Recommendation
51	Greater Wellington works with territorial authorities, mana whenua and landowners to identify and document (by 2026) the locations of potentially contaminated land, including landfills, and the risks to water quality and aquatic ecosystems.
52	Greater Wellington, territorial authorities and mana whenua work with owners of land with contaminated sites to further investigate, monitor, develop and implement remediation plans for those that pose medium-to-high risks to water quality and aquatic ecosystems. These plans are to be developed within five years of the identification of these sites, and those posing high risks to water quality are to be prioritised for remediation.
53	Agencies involved in the remediation of contaminated land affecting water quality and aquatic ecosystems include mana whenua in decision making and involve, consider and contain the visions and ideas of community groups in the planning and implementation, including as part of developing catchment plans (see Recommendation 13).

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Paying extra respect to water sources

The hierarchy of obligations under Te Mana o te Wai provides for the health needs of people, as a second priority behind the health and wellbeing of waterbodies. But by protecting water sources, such as te mātapuna (headwaters) and aquifers, we also protect communities' health and wellbeing by providing for safe drinking water.

Keeping nitrates out of our drinking-water sources, for example, will protect the health and wellbeing of waterbodies and people. We are fortunate in our whaitua to have low levels of nitrates in our water supply sources and our recommendations intend to keep it that way. Recent studies suggest the maximum allowable level for nitrate-nitrogen in drinking water (11.3mg/L) may be too high when accounting for the risk of colorectal cancer. Our recommendation to maintain nitrate-nitrogen in our water supply sources in the 'A' band (< 1mg/L) will future-proof against this potential risk.

Drinking water sourced from rivers in the Hutt Valley, Wainuiomata and Ōrongorongo catchments is well protected through the designation of 'water collection areas' (land above the water takes that is owned and managed by Greater Wellington and Wellington Water to provide safe drinking water).

The quality of drinking water at greatest risk is that in the aquifers in the Hutt Valley, where a city sits above them. The Waiwhetū aquifer is an essential source of drinking water, sometimes providing up to 70 per cent of our supply in summer. Investigations after a bacterial contamination event in 2016-17 found that the aquifer was more vulnerable to contamination than previously thought. Further investigations are needed to better understand our aquifers to better manage risks to water quality and ecological health (see Recommendation 108).

Those living above aquifers have a role in managing the risks to them from their activities. Implementation of many of our recommendations will help better protect the aquifers, but councils, mana whenua and communities need to work together to investigate risks, prioritise actions and closely manage activities that create risks. Any work will need to align with regulation changes about drinking-water sources, signalled as part of the Three Waters Reform Programme.

Number	Recommendation
54	Greater Wellington, mana whenua, Hutt City Council, Upper Hutt City Council, the relevant three waters agency and the community actively work together to better protect the current and future sources (surface water and groundwater) of human drinking-water from emerging threats. They do this by investigating the risks associated with water quality and quantity and managing activities that may adversely affect this (such as land use and contaminant discharges). This may include developing district and regional plan provisions and other methods.

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Balance the needs of water and people in the places we live

Te Mana o te Wai requires us to prioritise the health and wellbeing of water bodies and freshwater ecosystems first. While there are notable examples of past decisions that have done this (such as the areas which protect our drinking-water sources and our 'green belt'), for the most part the current design of the places we live in reflects decisions that have prioritised economic wellbeing at too great a cost to our relationship with water and its health.

Re-balancing things will not be easy, but there are ways we can start doing things differently so that our tamariki and mokopuna inherit an environment working more in harmony with water than what we have today. By putting water at the centre of our thinking we can re-imagine possible futures, identify the opportunities and work out how to overcome perceived constraints. To make a start our recommendations are focused on:

- Making water sensitive urban design the norm
- Approaching flooding risks in ways that better respect natural processes
- Protecting and restoring wetlands
- Letting the fish move freely throughout the whaitua.

Making water sensitive urban design the norm

Urban development disrupts natural cycles. Urban growth has cleared and contoured land to establish built environments with largely impermeable surfaces, introducing new (emerging) contaminants and increasing existing contaminants into the environment, with little treatment along the way. This results in reduced water storage and natural treatment, and a reduction in stream flows to maintain the remnant ecosystems.

We need to reconsider the way our urban spaces grow and develop. This isn't a new idea, as many cities in New Zealand are years ahead of us. What's missing, in our view, are strong requirements and an easy-to-follow regulatory and design pathways to incorporating WSUD into any new developments. In our cities we must also install in new developments (and the existing built environment) more natural stormwater systems ('green infrastructure') to treat contaminated water at its source. We must also drive a community-wide and industry-wide shift that considers environmental impacts at the household level.

Councils are responsible for controlling urban developments and should ensure their rules require the widespread use of WSUD. This is because WSUD uses interventions (such as rainwater/stormwater harvesting, rain gardens, constructed wetlands, swales, green roofs and permeable pavements) to reduce water-quality impacts and reduce peak wet weather flows through naturalised treatment processes. This would be a game-changer and help to rekindle our connections to water and the environment, especially for our children.

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To realise our vision of WSUD being the norm for our urban environments, our recommendations focus on:

- **Creating a consistent approach to WSUD across the whaitua**, so that it is easier for people to understand expectations and to ensure equal care for water no matter where in the whaitua development is happening.
- **Supporting people to make the most of WSUD**, so good decisions are made that maximise the benefits for water and people and take account of the wider catchment context.
- **Being smarter about approaches to stormwater management**, so that we achieve a more natural water cycle and make good use of water where it falls.
- **Ensuring green infrastructure is maintained**, so that it remains fit for purpose throughout its life.

Number	Recommendation
Creating a consistent approach to WSUD across the whaitua	
55	The relevant three waters agency's (currently Wellington Water) Regional Standard for Water Services should incorporate WSUD stormwater and water conservation interventions.[6] Also, territorial authorities' codes of practice and district plans should be amended to refer to the Regional Standard for Water Services (where applicable) by 2025, and should be mandatory for all developments (greenfield, infill/brownfield and re-development, including infrastructure). It should be supported through education programmes for contractors, community groups, and the design and engineering community.
56	By 2022, Greater Wellington convenes a WSUD working group with mana whenua, territorial authorities, the relevant three waters agency and Waka Kotahi. The group will need to be funded to cover its wide-ranging work, which will aim to: • Resolve barriers to WSUD in the Wellington Region • Identify opportunities to retrofit WSUD and green infrastructure into the existing urban environments, incorporating communities and catchment-level planning • Identify opportunities to 'daylight' piped streams and restore existing streams to promote community connection, habitat restoration and flood mitigation • Lead by example in promoting new WSUD initiatives. The working group should be part of Greater Wellington's newly established regional stormwater forum. It should also collaborate with key stakeholders (such as developers and commercial, industrial and residential community groups), and help provide education and training material/programmes for contractors.
57	By 2025, Greater Wellington, mana whenua and territorial authorities amend the relevant planning documents to retain, restore and enhance the natural drainage system – so that they require hydraulic neutrality and water-quality treatment in urban catchments through WSUD.

[6] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 7.

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Supporting people to make the most of WSUD	
58	Greater Wellington and mana whenua, together with territorial authorities and the relevant three waters agency, develop (by 2025) a comprehensive suite of regulatory and non-regulatory interventions for new property developments and infrastructure, to be implemented through WSUD via a catchment-management approach. These interventions would include water impact assessments, rainwater/stormwater harvesting, rain gardens, constructed wetlands, green roofs, improved sump maintenance, strategic street sweeping and permeable pavements to reduce water-quality impacts and reduce peak wet weather flows.[7] Existing properties and infrastructure should be retrofitted using this WSUD approach whenever opportunities arise (e.g., at the end of an asset's life).
59	The relevant three waters agency: • Develops a standardised tool (by 2025) that can be used to assess a development's potential contributions of contaminants and hydrological impacts • Recommends potential options to mitigate these effects using site-appropriate WSUD green infrastructure. This supports the global stormwater strategy (Recommendation 56) and Recommendation 58.
Being smarter about approaches to stormwater management	
60	By 2025, Greater Wellington and territorial authorities amend the relevant planning documents so that all resource consents for property developments and infrastructure upgrades/repairs require the minimisation of stormwater effects and achieve hydraulic neutrality on-site. Where this is not possible or practical on development sites, a formal stormwater offsetting programme could be adopted to fund more efficient centralised systems in the public realm.[8]
61	Territorial authorities amend regulatory documents, while working with the relevant three waters agency, to (by 2035) reduce the effects of stormwater flooding on public health, safety and property by further integrating the use of roads and open spaces (such as parks and sports grounds) to act as overland flow paths and flood storage.[9]
Ensuring green infrastructure is maintained	
62	By 2024, territorial authorities work with the relevant three waters agency to develop an approach to the ownership and management of green infrastructure for property developments, and ensure this infrastructure meets appropriate standards when being vested to council ownership.[10]
63	Territorial authorities ensure that (by 2024) all green infrastructure is adequately capitalised and depreciated to provide funding for ongoing maintenance and renewals.[11]

[7] Modified from WCC Mayoral Task Force Review on the three waters, Recommendation 6.
[8] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 8.
[9] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 14.
[10] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 10.
[11] Modified from WCC Mayoral Task Force Review on three waters, Recommendation 11.

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Approaching flooding risks in ways that better respect natural processes

Flooding can affect many parts of the whaitua, in both rural and urban settings. This can occur from small streams overtopping their banks, surface ponding due to insufficient stormwater system capacity, or even large-scale and extensive flooding when a river burst its banks. Much of the urban environment has developed on floodplains, with the largest supporting over 70,000 people around Te Awa Kairangi/Hutt River.

To keep these communities safe, we rely on stop-banks to constrain the river's flow and keep it away from people and houses. However, while this keeps us safe, the process can damage habitats, remove swimming holes and mahinga kai, and prevent the river flowing in its natural path. Allowing rivers to self-adjust aligns with te Mana o te Wai and can work out cheaper than ongoing hard engineering interventions.

Te Mana o te Wai requires us to change the way we manage rivers, including through flood protection. We can't compromise the safety of our communities, but we must honour the mana and the mauri of the wai (both Te Awa Kairangi/Hutt River and the smaller streams that flow into it). This means flood protection works must balance the safety of communities and the ability of the river to flow naturally, while enhancing swimming holes and habitats, and empowering mana whenua to act as kaitiaki and undertake mahinga kai. We must also not allow new development in areas that we know are at high risk of flooding. Keeping people out of harm's way in the first place is the best way to keep our communities safe.

We're calling on councils to change the ways they manage flooding and the dangers it creates, aligning with Te Mana o te Wai. This change should happen as soon as possible, because it will take a long time for the benefits to appear of giving streams and rivers room to move. We may not reap those benefits ourselves, but our children and grandchildren will enjoy rivers and streams flanked by native trees and surrounded by native birds.

Number	Recommendation
64	Greater Wellington works with mana whenua, community groups and territorial authorities to amend (by 2024) all relevant regulatory documents to ensure: • That river management enhances habitat restoration and stormwater treatment along the full length of developed rivers • The protection of swimming holes. Specifically, for Te Awa Kairangi/Hutt River, these objectives should be accounted for when undertaking flood protection works.
65	Territorial authorities update the relevant regulatory documents (by 2025) to ensure they incorporate up-to-date flood hazard mapping and are supported by rules that prevent property development in high-risk areas.
66	By 2024, Greater Wellington amends the relevant regulatory documents to include policies that aim to avoid unsuitable property development, with reference to setbacks from stream/river margins and hydraulic neutrality.

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	By 2025, territorial authorities incorporate rules in their district plans that: • Require WSUD, including hydraulic neutrality in any developments • Provide for buildings to be set back from river and stream margins (these setbacks are to provide for āhua and natural character) • Restrict development in known overland flow paths (in line with Recommendation 61).
67	Greater Wellington amends the relevant regulatory documents by 2023, while working with mana whenua and territorial authorities to co-design operational guidelines for undertaking flood works on small urban streams, including those on private property. These guidelines would: • Leave room for the river, floodwater and natural processes • Establish native riparian vegetation, which also gives effect to the values in the NPS-FM 2020.
68	Greater Wellington, territorial authorities, mana whenua and the relevant three waters agency develop plans (by 2030) for the managed retreat and adaptation of three waters infrastructure due to rising sea level.

Protecting and restoring wetlands

Natural wetlands are rich in biodiversity and have a unique role in filtering contaminants from water. They are a natural and essential part of water's journey from the mountains to the sea and are important for slowing the impacts of flooding, cleansing water and as carbon sinks. From micro wetlands that are the source of our streams, to large areas such as the Mangaroa peatland and those wetlands around Lakes Kōhangapiripiri and Kōhangaterā, they are a highly valued environment that must be protected.

The retention and restoration of our remaining repo (wetlands) is of great importance to mana whenua who recognise repo for their role as habitat for rongoā (plants able to be used as remedies), mahi raranga (plants and soils used for weaving and construction) and supporting mahinga kai values (places, taonga species and activities relating to cultural harvest).

Unfortunately, most of the wetlands in our whaitua have been lost, and what's left are our most critically endangered habitat. Only three per cent of the original wetland extent remain in Whaitua Te Whanganui-a-Tara. Most of these wetlands are on private land and depend on landowners' efforts for their protection and to avoid further fragmentation and degradation. The Mangaroa peatland is the only deep peat land in the Wellington Region, and while originally 420ha in area it has been affected by draining for more than a century. Draining wetlands has changed them from carbon sinks to sources of carbon dioxide.

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Our goal is to see the remaining wetlands protected and enable degraded wetlands to be restored by communities in a way that does not affect people's housing. Many landowners are already investing in protecting wetlands on their properties, but there is still work to be done. Barriers to taking action need to be overcome, so that landowners have the information, support and community aspirations to act as kaitiaki for these precious areas. To this end, the committee also supports mana whenua aspirations for the Parangārehu Lakes area.

The further loss or degradation of wetlands is incompatible with our role as kaitiaki, because without wetlands and the species they support the mauri of our waters is diminished. Our recommendations give protection to these rare habitats and acknowledge our debt to them for the physical and spiritual sustenance they provide. Restoration benefits the journey of water from mountains to sea and enhances Te Mana o te Wai.

Number	Recommendation
69	Greater Wellington supports and incentivises landowners wanting to restore wetlands and removes barriers for best-practice restoration of the mauri of degraded wetlands.
70	Greater Wellington increases the resourcing available to implement and enforce the NPS-FM 2020, National Environment Standards and PNRP provisions about wetland identification, protection and restoration.
71	Greater Wellington supports positive relationships with wetland owners, including those with wetlands above the Parangārehu Lakes and at Mangaroa. It also provides assistance to protect and restore those wetlands.
72	Greater Wellington and mana whenua seek opportunities to develop and restore wetland habitat when managing and designing flood protection works and developing green spaces.
73	Greater Wellington maps all natural wetlands in the whaitua, as required by the NPS-FM 2020. This is to be completed by 2024, rather than the NPS-FM deadline of 2030.
74	Greater Wellington addresses the issues raised in *Te Mahere Wai* on the recommendations about the Parangārehu Lakes area.

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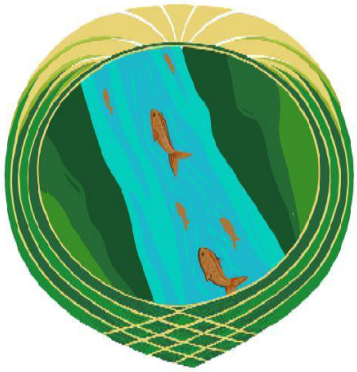
Letting the fish move freely throughout the whaitua



Our streams, rivers, wetlands and lakes are home to a large variety of native and introduced fish. Many people are not aware that within our dense urban footprints some native species may still be present, despite the highly modified environment.

However, life for the fish is not without its problems. As our cities have grown, we've piped the streams that used to flow to the sea and those pipes have made it difficult – even impossible – for fish to migrate between the sea and freshwater. Added to this are other potential barriers (such as poorly installed and maintained culverts, flood gates, ford, weirs and dams, e.g., the Silverstream Weir across Te Awa Kairangi/Hutt River).

The situation is especially grave for mahinga kai – the native fish species, the fish-gathering process and the passing on of knowledge from generation to generation. Blocking the fish passages threatens not only their survival, but also the kaitiaki role and cultural practices of mana whenua. With so many native fish species under threat of extinction, change is urgently needed.

To start with, we need to understand the scale of the problem by identifying all the barriers in our whaitua, then find ways to remove them. Greater Wellington can start this process, but we know that mana whenua will be the key to the programme's successful implementation. While councils can help mana whenua in setting up the programme, they simply don't have the mandate, the capacity or the expertise to manage freshwater for mahinga kai.

We understand that restoring fish passages will be a long process, and for that reason our recommendations include priorities (such as the spawning places of mahinga kai species). Also, we believe it will be easier to find and remove barriers to fish passage on public land, so we've scheduled this work ahead of that on private land. Together, we'll enable our native fish to live the way they did before we modified their habitat, restoring mahinga kai and the mauri of our precious water.

Number	Recommendation
75	Greater Wellington identifies all fish passage barriers on public land by 2025 and private land by 2030.
76	Greater Wellington, together with mana whenua, community groups and territorial authorities, works with owners of fish passage barriers to remediate the highest-risk sites by 2040 and all other sites as soon as practical, but no later than 2045. Catchments highly valued for their indigenous fish and mahinga kai species are prioritised and Greater Wellington reports publicly on the identification and remediation progress.
77	Greater Wellington and mana whenua work with territorial authorities to identify (by 2025) and restore (by 2035) the spawning habitats of indigenous fish and mahinga kai species (e.g., inanga) in their rohe.

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Be responsible and respectful in our use of freshwater

Our awa need abundant water to be their true selves and support vibrant freshwater ecosystems. All water we take for our own use is precious – given to us by water as the source of all life. But our way of life uses water in a way that affects water health more than it should. This isn't consistent with Te Mana o te Wai as the health and wellbeing of water bodies and freshwater ecosystems should come first.

The population dependent on the waters of Whaitua Te Whanganui-a-Tara is expected to rise significantly in the coming years, with a corresponding rise in the need for water. However, climate change means rainfall will be more erratic, with occasional longer droughts and bigger storms. Sea-level rise will increase the risk of salt water getting into the Waiwhetū aquifer. Together, these factors mean that unless we change our ways, the health of water will decline.

If we want to realise Te Mana o te Wai and have enough water to thrive in the future, we need to respect water by being more careful with what we take and use. Our recommendations for being more responsible about how we meet the needs of people are focused on:

- Redesigning our water allocation system
- Moving towards more natural flows in our rivers and streams
- Only using the amount of water we need
- Future planning for our public water supply

Councils, individuals and commercial water users in the Porirua community have the same responsibilities to Whaitua Te Whanganui-a-Tara as those who live here, as their water is supplied from the same sources within this whaitua. Engagement between the relevant councils and three waters agency will be needed to support the Porirua community with the implementation of our recommendations.

Redesigning our water allocation system

Many of our problems can be traced back, in part, to our water allocation systems. We need to transform and redesign these systems if we're to achieve Te Mana o te Wai and give effect to iwi rights and interests. We also need to develop measures to understand what success in giving effect to Te Mana o te Wai looks like for water quantity.

Tweaks within the current water allocation regulatory framework will not be enough to achieve outcomes. Fundamental system change is needed for mana whenua and communities to be able to realise their aspirations for water use. For instance:

- We need to rethink the way we source water and supply it to our cities.
- There must be changes in the way people and businesses use and value water.
- There needs to be a better way to decide who can access water, because the 'first come, first served' approach is inequitable and hasn't worked well for mana whenua or the community.

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- We need to consider how we dispose of our sewage, because using large amounts of high-quality drinking water to dispose of it is wasteful of the water.

As we restore the mauri of our awa we can build a better system – one in which we look after the water first, in partnership with mana whenua. The transformation of our water allocation system will take time, but changes can be made now to begin that journey and better protect our rivers and streams as set out in other parts of our recommendations.

Number	Recommendation
78	Mana whenua and Greater Wellington work together and with input from relevant interested parties, including the three waters agency, to design a new water allocation regulatory regime that: • Gives effect to our understanding of Te Mana o te Wai • Provides for mana whenua rights and interests, which may include a specific allocation for iwi • Includes mātauranga Māori in its development and monitoring.
79	Greater Wellington investigates options for iwi allocation in the current regulatory regime.
80	Mana whenua and Greater Wellington work together to develop a framework of how Te Mana o te Wai (for water quantity) can be achieved and demonstrated. This includes agreeing on the process, measures and indicators of success. Note: This links to wider attribute work, as the measures can't sit with water quantity alone.
81	Greater Wellington supports mana whenua to develop mahinga kai measures related to water quantity.
82	Greater Wellington, mana whenua and territorial authorities (including Porirua City Council) recognise, promote and provide for the mana of the Te Awa Kairangi/Hutt, Wainuiomata and Ōrongorongo Rivers as awa tupuna for Taranaki Whānui and Ngāti Toa Rangatira. They are treasured taonga and providers of wai ora and hauora (health and wellbeing) for the whole Whaitua Te Whanganui-a-Tara community and Te Awarua-o-Porirua community.

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Moving towards more natural flows in our rivers and streams

While it will take time to re-design our water allocation system, we can make changes to our regulations now that will enable us to reduce the amount of water taken at times of low flows and better protecting our rivers and streams. To move towards more natural flows in our rivers and streams, our recommended actions focus on:

- **Changes to minimum flows and allocation amounts**, to better protect the health of water and ecosystems through natural cycles of change in water abundance.
- **Removing permitted water takes**, so that the only takes not consented are for the provision of drinking water for people and livestock.
- **Supporting the implementation of new regulations around water takes**, so that people know the rules and the impact of changes is well understood.

The current minimum flow at Kaitoke on Te Awa Kairangi/Hutt River, where the main water supply intake is located, is 600L a second. As a percentage of the mean annual low flow (MALF) ,approximately 35 per cent, and considering the high volume of abstraction, this is well below what is deemed to be precautionary in Aotearoa for providing for ecosystem health. It is also likely to be impacting on other values.

We don't yet have measures or understanding about what minimum flows give effect to Te Mana o te Wai, but the hierarchy of obligations in the NPS-FM requires the health and wellbeing of the river to be prioritised over other uses. Our recommendations take a precautionary approach by endorsing significant increases to minimum flows over time to reduce risks to ecosystem health from abstraction at low flows. At the same time investigations will be undertaken to improve our understanding (see Recommendation 107).

Raising the minimum flows will help achieve a more natural flow that is less affected by water takes, but it will impact on our community water supply. People still need water, which is why we have recommended that the transition happen over a significant length of time. This allows for engagement with councils and community (including Porirua), the community water supply to diversify its sources and create more storage, and for tools to reduce water demand and wastage to be implemented (see recommendations in the 'Only using the amount of water we need' and 'Future planning for our public water supply' sections).

There is a very small amount of groundwater available to be allocated, but we are recommending that the allocation be capped at the existing consented use. This is because aquifers and surface water are highly connected, so taking more groundwater will result in a greater impact on the surface water that is already fully allocated.

In addition to the consented water takes, people can take up to 20,000L of water a day from any stream under the 'permitted activity water take' rule in the PNRP. While evidence suggests people

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don't often take the full amount, if they did, the flow and overall health of our streams would be at serious risk. These smaller streams and the water they carry are vital to the whole whaitua, as they provide important environments for our urban and rural residents and precious habitats for native fish species and mahinga kai.

For this reason, we recommend that the current permitted allowance be replaced with a requirement that people taking water from a stream or aquifer gain a resource consent first. This wouldn't apply to takes that provide drinking water for people and livestock, as these takes are protected under the Resource Management Act.

Number	Recommendation
Changes to minimum flows and allocation amounts	

83	Greater Wellington includes in the PNRP the following water allocation limits for the Te Awa Kairangi/Hutt, Wainuiomata and Ōrongorongo Rivers:
	• Increase the minimum flows over time to 80 per cent of MALF in 50 years' time:
	  ○ The first minimum flow increase must be included in the upcoming plan changes to be notified by 2024 and will apply from the mid-2030s, or whatever date is most appropriate, to ensure that the new minimum flow applies when the bulk water consents to take surface water in the major water supply catchments are renewed
	  ○ Future increases in minimum flow must be stepped out in line with the bulk water consent renewals
	  ○ We expect this pathway for increases in minimum flows to be revised as a result of further investigative work to understand the limits that would achieve Te Mana o te Wai, outlined in Recommendation 107.
	• Cap the amount of water available to be allocated through consents at the existing consented use.

84	Greater Wellington includes in the PNRP the following water allocation limits for all streams (outside the three major water supply catchments): • 100 per cent of MALF for the minimum flow • 30 per cent of MALF for the allocation limit.
85	Greater Wellington retains the current policy settings that allow the reallocation of any water that becomes available within the allocation limit to be reallocated.
Removing permitted water takes	
86	Greater Wellington amends the PNRP policy and rule framework in Whaitua Te Whanganui-a-Tara so the region-wide permitted activity rule (R136) no longer applies to this whaitua. Note: Water takes for reasonable domestic use and animal drinking water are still authorised under section 14(3)(b) of the Resource Management Act. All other takes will require a resource consent.

Supporting the implementation of new regulations around water takes	
87	Greater Wellington amends the PNRP through a plan change (by 2022) to ensure that all water takes requiring resource consent within Te Whanganui-a-Tara require metering. Electronic metering is required by 2027.
88	Greater Wellington reviews all existing consents in catchments outside the major water supply catchments that haven't expired within five years of the whaitua plan change, to ensure that any updated allocation limits are applied to consents.
89	In collaboration with catchment communities, Greater Wellington develops a work programme designed for and with landowners (particularly for lifestyle block owners), to ensure they are aware of regulations on the use of water.
90	Greater Wellington undertakes assessments (e.g., through rural engagement surveys and targeted catchment investigations) to understand any potential changes in the way people are taking unconsented water (section 14(3)(b) of the Resource Management Act about takes).
91	Greater Wellington increases its flow monitoring in small streams in catchments where land use is changing significantly, or there is thought to be a relatively high potential for change (e.g., rural intensification). This is to establish whether any increase in water use is affecting flows and therefore values.

Only using the amount of water we need

The large population base in Wellington and the Hutt Valley relies on Te Awa Kairangi/Hutt River and its aquifers for most of its community water supply, and Porirua does as well. In total, about 95 per cent of all water taken in this whaitua is for community water supply. Of that, around 60 per cent is used for residential purposes, 20 per cent for commercial/industrial purposes and 20 per cent is lost to leaks.

Our whaitua has one of New Zealand's highest rates of water use per person – and that's not a statistic to be proud of. Practically speaking, and at the current rate of use, we can expect more restrictions on water use in the future due to the pressures of population growth and climate change. We must reduce demand and improve water efficiency to both solve our future water crises and have more respect for the mauri of our awa.

Individuals and commercial water users have a vital role in making this happen and need to be supported with information and tools that enable them to make more informed decisions about their water use. Reducing individual use will help overall demand, which is essential to achieving a more resilient water system in the future.

Water tanks are a useful tool for reducing the pressure on the public water supply. We recommend they be installed in residential and commercial properties for purposes that don't require treated water (such as watering gardens). Water tanks also improve people's connection to their water, slow runoff from impervious surfaces, and act as emergency water sources in events like earthquakes.

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Number	Recommendation
92	Territorial authorities and the relevant three waters agency implement universal residential metering to identify water wastage, reduce demand and enable more effective network management. To enable metering: • Territorial authorities will consult on how to fund water meters by 2025 • The relevant three waters agency will install water meters. The whaitua committee recognises that water metering enables a range of mechanisms for reducing demand. These include, for example: leak detection; information provision; the identification of potential excessive users for advice, support and/or fines; and volumetric charging. Agreement could not be reached on whether volumetric charging should be introduced as a lever for reducing demand. However, if it is, it will be important to ensure that: • Water assets remain in public ownership • People can access enough water to flourish • Vulnerable communities are not disadvantaged • Water is respected as the giver of life and doesn't become a commodity • It prevents exploitation and excessive use by people who can afford it.
93	The relevant three waters agency provides the community (by 2022) with information on and practical support for being more efficient with water. The information might cover: • Technological solutions (such as the different uses of rainwater tanks) • Water-saving tips • The natural water cycle and where our water comes from. The support could be provided through partnerships with catchment groups, through the Mangai Wai Ora (kaitiaki) programme (see Recommendation 101), professional associations and enterprises (e.g., a Sustainability Trust model).
94	The relevant three waters agency develops a programme by 2023 that engages with commercial water users (and starts with identifying the top 100). The programme: • Identifies how water is used • Helps users to understand how their use compares to that of similar industries nationally and globally • Supports businesses to improve water efficiency and/or lower their demand.
95	Greater Wellington and the relevant three waters agency investigate the current pricing for commercial water users (by 2023), to determine if changes in pricing mechanisms could help improve their water-use efficiency and identify the possible economic implications.
96	Territorial authorities promote the use of rainwater tanks or alternative water-storage solutions for non-potable uses in new commercial and residential developments. Note: The majority of the committee strongly supported rainwater tanks being mandatory for new developments, but there was not consensus agreement. The committee did agree that more rainwater tanks in new developments would be beneficial and their use should be promoted.

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97	Greater Wellington, territorial authorities and the relevant three waters agency incentivise (and support with educational material) the retrofitting of rainwater tanks to reduce demand and/or attenuate stormwater, prioritising suburbs that are prone to flooding due to capacity issues in the stormwater network. Territorial authorities provide a funding mechanism for willing property owners.

Future planning for our public water supply

We want to have enough water available to provide for Wellington's future population growth, while putting the rivers and aquifer first as part of Te Mana o te Wai and accounting for the impacts of climate change on future rainfall. We also want to ensure our rivers have enough water to support their ecosystems, provide us with recreation opportunities, and protect our aquifers from salt water intrusion. Although we use more water in the summer than in the winter, the total amount doesn't vary much, so we need a steady supply.

Work needs to start straightaway on assessing and fixing leaks in the public drinking-water network, to reduce leaks and water wastage over time. If investigations reveal that the network is in a worse state than expected, and therefore that short-term leak reduction targets can't be met, it's still important to ensure that individuals, communities and businesses have accessible and fit-for-purpose information on the situation.

We also need to find ways to ensure water is supplied from more diverse sources in the future, with water supply less reliant on the three major water supply catchments at times of low flows. This includes investigating options to: harvest more water when the rivers are more resilient e.g., in higher flows); investigate options for additional large-scale storage; use rainwater tanks for storage of non-potable water; and recycle urban water on a community scale.

Number	Recommendation
98	The relevant three waters agency ensures that 100 per cent of the public drinking-water network is assessed for leakage (by 2030) and a plan (publicly available with progress reporting) is developed to repair and replace assets in the Wellington drinking-water network so that: • By 2030, the network will have an Infrastructure Leakage Index (ILI) of 4.5 or lower • By 2040, the network will have an ILI of 3.5 or lower • By 2050, an ILI target of 2 or less will have been achieved and an ongoing cycle of maintenance will be in place to ensure this continues.
99	The relevant three waters agency investigates additional water storage and harvesting water at high flows as soon as possible to ensure continued security of supply for municipal use.

100	The relevant three waters agency engages with the community and mana whenua (by 2023) on implementing community-scale, urban-water recycling for uses such as firefighting, the irrigation of parks and industrial/commercial applications. Initiatives to be considered should include: • Collecting and storing community stormwater in public spaces for non-potable purposes • Using the continuous supply of treated wastewater for non-potable purposes. Continued public education and long-term three waters strategies should also encourage a greater use of recycled urban water, and evaluate where existing networks can be optimised, replaced or retrofitted to make greater use of recycled water.

Develop the workforce needed to realise Te Mana o Te Wai

People in industries that use or affect water need to have a 'care for water' mindset, along with the knowledge and skills to integrate that philosophy with their everyday work. As more information is gained about the state of public and private three waters networks instances of cross-connected pipes and other sub-standard work continue to come to light. This is just one example of the importance of thinking about water within vocational training and professional standards.

Implementation of our recommendations relies on the availability of skilled mana whenua to advise at the governance level, partake in cultural monitoring and act as kaitiaki. There are already significant pressures and constraints on their capacity, and the value of their time is not always recognised.

Implementation (at the desired pace) also depends on the availability of workforces in a range of sectors with the right skills and capabilities to do the work, now and in the future. These workforces are already in high demand and the skills required are not always available locally. We need to be deliberate about finding and creating the workforce we need, in the context of the nationwide focus on improving the health of waterways and unprecedented infrastructure investment internationally.

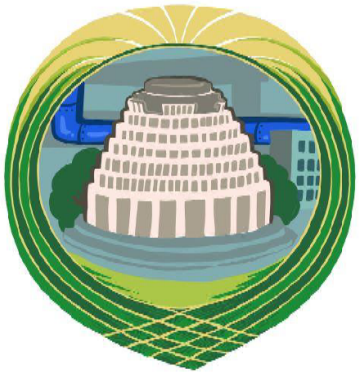
Number	Recommendation
101	Greater Wellington provide resourcing for a Mangai Wai Ora (kaitiaki) programme (as outlined in *Te Mahere Wai*), to be developed and led by Taranaki Whānui and Ngāti Toa, alongside relevant industry bodies to train a workforce of kaitiaki to support the ongoing delivery of work on freshwater projects in the whaitua. The scope of the role could include: • Freshwater and coastal monitoring using a range of scientific information, including mātauranga Māori, citizen science and community knowledge to inform the current state of water and the environment

	• Leadership in freshwater policy and plan development • Providing for cultural relationships with freshwater and coastal environments • Monitoring of mahinga kai and Māori customary use • Checking wastewater and stormwater infrastructure on private and public land, in support of three waters agency roving crews • Providing advice and support for industries on their potential impacts on water quality and mitigations • Supporting education on local streams, water quality and water usage in schools and the community • Clearing waterways of rubbish, riparian planting and reporting pollution.
102	Mana whenua, Greater Wellington and territorial authorities engage with relevant Workforce Development Councils (WDCs) to identify how the WDCs can best contribute, through their leadership roles in vocational education and training, to growing the workforce needed to take care of water.

Make clear where we expect central government to act

Central government has a role to play alongside councils, mana whenua and the community in achieving water-quality aspirations for fresh and coastal waterbodies. Several areas have been identified in our recommendations where central government need to play their part by changing national regulations.

The need for national-level reform doesn't stop individuals from doing their bit to protect water in the meantime (such as replacing the copper brake pads in their own cars).



Number	Recommendation
103	Greater Wellington and territorial authorities continue to advocate and petition central government for new regulations to restrict the supply of water for water-bottling activities.
104	Greater Wellington advocates to central government in 2022 for the Emissions Trading Scheme to include the protection and restoration of natural wetlands, whether or not they are currently functioning wetlands.[12]
105	By 2022, Greater Wellington, mana whenua and territorial authorities (through the regional stormwater forum – see Recommendation 56) will advocate to central

[12] Currently the Emissions Trading Scheme (ETS) excludes non-forest carbon sinks, such as wetlands. By having them included, landowners would qualify for carbon credits if they choose to carry out their own voluntary wetland restoration.

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	government to introduce with urgency rules that will phase out copper brake pads in vehicles by 2030 or earlier.

Improve information available for better decision making in the future

The recommendations in this WIP have been informed by the best available knowledge and information. However, gaps have been identified in several areas and we are still growing our understanding of how science (through research) can draw on the knowledge of mātauranga Māori (as kaitiaki). Understanding their complementary relationships and the benefits for both will help us take a holistic view in seeking solutions to our problems.

Investing in research and learning now will lay the foundation for innovation and more targeted decision making around these complex issues in the future. We expect to be continually adjusting how we care for water as knowledge and information evolves over time. We recommend focusing further investigations on:

- **Strengthening the use and influence of mātauranga Māori**, so that progress on mana whenua values is better understood and used to inform kaitiakitanga.
- **Developing measures for community participation and connection**, so that we better understand people's relationships with water.
- **Informing future minimum water flow and allocation decision making**, so that we can be confident we are making the best decisions for the awa.
- **Better understanding the health and connections of aquifers**, so that we can understand whether further actions are needed to restore their mauri and uphold their mana.
- **Improving our understanding of nutrient sources to inform toxic algal management**, so that we can target and build on recommended actions to further lower the risk of regular blooms.
-

Strengthening the use and influence of mātauranga Māori	
106	Greater Wellington partners with mana whenua to use mātauranga Māori in developing an understanding of water quality and quantity within the whaitua (e.g., our understanding of springs, aquifers and wetlands, and stream water-quality monitoring).
107	Greater Wellington partners with mana whenua to develop a comprehensive approach to understanding, managing and allowing for mahinga kai values throughout the whaitua. This should build on existing work by mana whenua and include: • Developing attributes for understanding whether the values are being provided for with mana whenua • Designing and implementing a comprehensive monitoring programme to provide information on current state and trends • Developing targets for mahinga kai throughout the whaitua

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	• Determining any management methods beyond those already recommended in this WIP that are required to achieve the targets.
Developing measures for community participation and connection	
108	Greater Wellington works with mana whenua and communities to develop measures for community participation in and connection to their water bodies – and in doing so build on the kaupapa framework, Te Oranga Wai, being developed by mana whenua (as outlined in Te Mahere Wai). 'Community connection' is important beyond narrow in-stream measures of environmental outcomes. It spans participation, mental health, spiritual connection, identity, sense of place, story and culture, and physical health needs. Note: This recommendation should only be undertaken once the kaupapa framework, Te Oranga Wai, being developed by mana whenua is complete and only if there are identified gaps in meeting wider community needs.
Informing future minimum water flow and allocation decision making	
109	Greater Wellington, mana whenua and the relevant three waters agency undertake, or continue to undertake, investigations to determine the changes in minimum water flows and allocation required to meet the long-term whaitua vision and Te Mana o te Wai. Investigations are to begin by 2022 and to be completed by 2027. These investigations should lead to a package of actions and a timetable for implementation. Their scope should be defined in detail and include, but not be limited to: • Prioritising catchments based on information requirements, values and pressures, which includes any catchment focal points for small stream investigations beyond the main water supply catchments • Mātauranga Māori and quantifying water flows to support mana whenua values and outcomes for catchments of interest • Testing alternative minimum water flow and allocation regimes alongside a range of municipal water supply infrastructure options • Facilitating the implementation of any new allocation regime and detailed assessments of its implications for municipal water supply infrastructure • Assessments of the implications of climate change on stream flows • Ecosystem function modelling • A review and revision of the Waiwhetū aquifer's management.
Better understanding the health and connections of aquifers	
110	Greater Wellington supports and invests in research (to begin by 2023) to better understand our aquifers. This includes investigations of the: • The hydrogeology of aquifers (such as groundwater sources and flow paths, and water availability) • Indicators of aquifer ecosystem health, such as stygofauna • Stressors on aquifer ecosystem health, such as contamination from *E. coli* and land uses • Risks to the sources of human drinking water, including from emerging contaminants.

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	Note: Ecosystem health encompasses the five elements of the NPS-FM 2020 – water quality, water quantity, habitat, aquatic life and ecological processes. To support this research, Greater Wellington develops a monitoring network for aquifer ecosystem health by 2023.
Improving our understanding of nutrient sources to inform toxic algal management	
111	Greater Wellington initiates (by 2025) and carries out more investigations into the nutrient sources of Te Awa Kairangi/Hutt River, to help in developing the actions needed in future to manage toxic algae. These investigations may include: • Nitrogen coming from tributaries and groundwater in the Pakuratahi and Mangaroa River catchments • Nitrogen entering the shallow, unconfined Upper Hutt aquifer (this links with Recommendation 44) • The contribution of sediment-bound phosphorus • Identifying the sources of fine sediment and its role in toxic algal bloom formation.

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The pathway to healthy water

Our ultimate destination is for all waterbodies, from small streams to larger rivers, aquifers, wetlands, lakes, estuaries and coastal waters, to be returned to a state of wai ora (water of life-giving quality) over time. We can't know exactly what the journey there will look like, particularly as some parts are for future generations to lead. But we must keep this destination in our collective sight and chart a pathway of clear steps (or 'waypoints'), which can guide more immediate decisions and tell us whether we are on course for wai ora in each catchment area.

Describing the destination and steps towards healthy waters

The NPS-FM contains a set of nationally consistent measures for water quality that are called 'attributes' (such as *E. coli*), as a measure for health risk from pathogens. In turn, the attributes have states ('attribute states') ranging from A (excellent) to E (poor). In most cases the C attribute state represents an environmental bottom line. Greater Wellington must use these attribute states to set the water-quality target states which lay out the pathway, require action and mark progress.

We believe, however, that these measures are only part of the picture and do not fully express a holistic understanding of 'healthy waterbodies' for kaitiaki and communities. Mana whenua mātauranga considers a wider set of measures which means that, for example, an area measured against the NPS-FM attributes (as in a good or excellent state) may still be considered degraded by mana whenua for mahinga kai and mauri outcomes.

We expect that new measures of holistic health are used to broaden the description and waypoints of our journey towards healthy water once they are developed. *Te Mahere Wai* has more on this, including Te Oranga Wai, an assessment framework approach (currently in development) based in mātauranga Māori. This framework offers wider tools for assessing the NPS-FM's first priority of Te Mana o te Wai.

As these holistic frameworks begin to be used by kaitiaki and communities, the information in the catchment chapters will be able to be enriched. This will improve our understanding of progress towards Te Mana o te Wai and the impact of our recommendations. We also expect it to reveal opportunities to improve outcomes that are not immediately apparent in the information currently available, improving future decision making. Our hope is that each catchment chapter will become a living document used by catchment communities to capture the journey for each awa and plan local actions that complement the recommendations in this WIP.

Whaitua catchment areas

We have identified six broad 'catchment areas' in the whaitua, with sub-catchments within some of these. The six areas follow from the mountains to the sea – ki uta ki tai – and the sub-catchments within reflect where we know there are broad changes in the character and conditions of the stream and our activities in the catchment. These are spatial areas where the opportunities and challenges faced by the individual awa within them are similar, and there is value in people coming together to work out how best to care for those awa.

In reality, people in community and kaitiaki groups work in a much more locally focused way at smaller scales than these. This reflects the personal connections that people feel with particular

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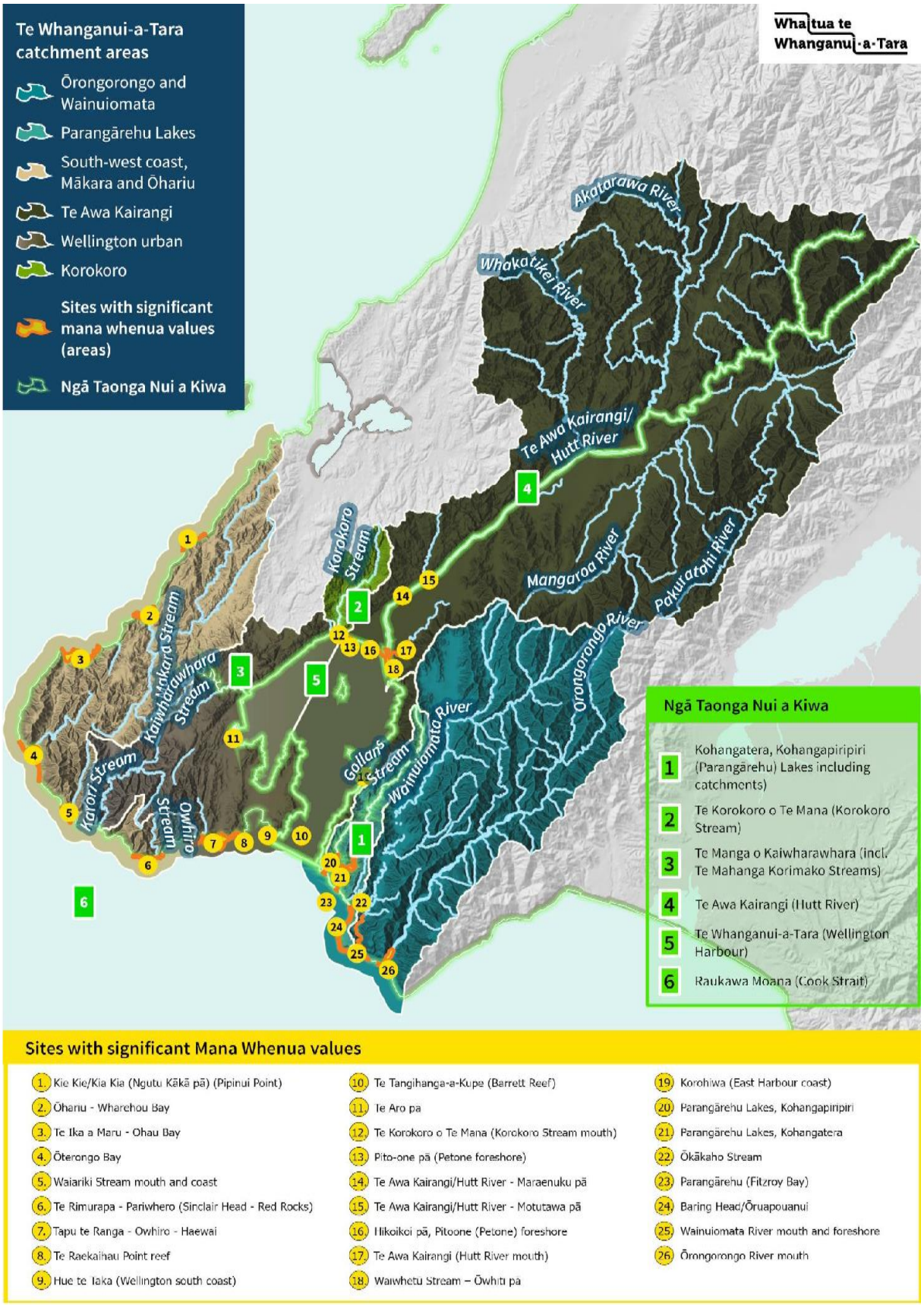
places. Water is all-connected, so integrated management of our impacts is important – without it, groups can be frustrated by activities upstream or downstream undermining their efforts. We hope that the frameworks we provide for these larger areas will help local groups understand the wider catchment context for their place and how their contributions can best sit alongside the efforts of others. Information and insights at a local scale will also help fill the gaps in our knowledge, and support better planning across each catchment.

The six areas are:

- Te Awa Kairangi/Hutt Valley and Waiwhetū
- Ōrongorongo and Wainuiomata
- South-West Coast, Mākara and Ohariu
- Korokoro
- Wellington Urban, Southern Coast and Te Whanganui-a-Tara
- Parangārehu Lakes.

Each area is described in detail in its own chapter, with a map showing the major sub-catchments, a description of each catchment, the opportunities and challenges we see in implementing our recommendations, and tables showing:

- The expected stream conditions now, and what is forecast if there is no further intervention beyond current rules and practices
- The stream conditions we expect will be achieved once our recommendations are implemented
- Steps that signal where more improvement will still be needed, providing waypoints to guide future decisions on actions towards wai ora.


Te Whanganui-a-Tara catchment areas
Ōrongorongo and Wainuiomata
Parangārehu Lakes
South-west coast, Mākara and Ōhariu
Te Awa Kairangi
Wellington urban
Korokoro
Sites with significant mana whenua values (areas)
Ngā Taonga Nui a Kiwa
Whaitua te Whanganui-a-Tara
Akatarawa River
Whakatikei River
Te Awa Kairangi/ Hutt River
Korokoro Stream
Mangaroa River
Pakuratahi River
Orongorongo River
Wainuiomata River
Kaiwharawhara Stream
Karori Stream
Owhiro Stream
Gollans Stream
Ngā Taonga Nui a Kiwa
1 Kohangatera, Kohangapiripiri (Parangārehu) Lakes including catchments)
2 Te Korokoro o Te Mana (Korokoro Stream)
3 Te Manga o Kaiwharawhara (incl. Te Mahanga Korimako Streams)
4 Te Awa Kairangi (Hutt River)
5 Te Whanganui-a-Tara (Wellington Harbour)
6 Raukawa Moana (Cook Strait)
Sites with significant Mana Whenua values
1. Kie Kie/Kia Kia (Ngutu Kākā pā) (Pipinui Point)
2. Ōhariu - Wharehou Bay
3. Te Ika a Maru - Ohau Bay
4. Ōterongo Bay
5. Waiariki Stream mouth and coast
6. Te Rimurapa - Pariwhero (Sinclair Head - Red Rocks)
7. Tapu te Ranga - Owhiro - Haewai
8. Te Raekaihau Point reef
9. Hue te Taka (Wellington south coast)
10. Te Tangihanga-a-Kupe (Barrett Reef)
11. Te Aro pa
12. Te Korokoro o Te Mana (Korokoro Stream mouth)
13. Pito-one pā (Petone foreshore)
14. Te Awa Kairangi/Hutt River - Maraenuku pā
15. Te Awa Kairangi/Hutt River - Motutawa pā
16. Hikoikoi pā, Pitoone (Petone) foreshore
17. Te Awa Kairangi (Hutt River mouth)
18. Waiwhetu Stream – Ōwhiti pa
19. Korohiwa (East Harbour coast)
20. Parangārehu Lakes, Kohangapiripiri
21. Parangārehu Lakes, Kohangatera
22. Ōkākaho Stream
23. Parangārehu (Fitzroy Bay)
24. Baring Head/Ōruapouanui
25. Wainuiomata River mouth and foreshore
26. Ōrongorongo River mouth

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Achieving wai ora is a long-term journey

Within the chapter of each catchment area are a set of attribute tables that illustrate the planned pathway from current state to wai ora state for each awa, using the water-quality attributes from the NPS-FM.

Current and forecast attribute states

The first set of columns in each attribute table shows the current attribute state of streams in each catchment area now, and the forecast state if no further intervention beyond current rules and practices has taken place. It is based on the science advice from our expert panel scenarios, and information provided by other expert advisers, and considers projected climate change impacts and population growth.

While this gives a single current state and forecast trend assessment for a whole area, we know water-quality states vary widely in every sub-catchment and along each reach of stream. Even an urban stream can have excellent mauri, habitat and water quality in its headwaters. It is vital that we access local knowledge to understand all the places where mauri and water quality are good or excellent and ensure they are protected, maintained and improved.

The forecast illustrates that climate change is expected to increase many pressures in the coming decades, with decreases in summer low flows and increases in temperatures, periphyton, sediment and flood disturbance of freshwater habitat in many parts of the whaitua. Without better practices and infrastructure, urban development will exacerbate flood disturbance, habitat modification and contamination in streams and downstream waterbodies. If we continue to manage the environment as we do, we will see ecosystem health and other values continue to deteriorate in many parts of the whaitua. This is not good enough, and does not provide for Te Mana o Te Wai or align with our kawa.

As the current and forecast attribute states highlight, many rivers, streams and fresh and coastal waterbodies are degraded in places and exposed to current pressures and future risks. In places, the national bottom lines for water-quality measures have been exceeded. We must start changing our practices in development, land and water use and realise the committee's vision for all waterbodies.

First steps

The 'first steps' columns show the changes in stream conditions that we expect to see from implementing our recommendations for all the issues we have addressed. The short-term (S) states indicate an intention to hold the line in the face of expected declines, and in doing so sets in motion a need to implement our recommendations immediately. Generational (G) states describe the environmental conditions that are expected to result from the full implementation of our recommendations. They are based on science advice given through our expert panel scenarios and other expert advisors. A generational timeframe is 20-30 years, and achieving the attribute improvement depends on the speed of implementation.

Our recommendations represent a significant shift in practice and commitment. We expect our recommendations to lead to improvements for all catchments, but unfortunately some places may not meet a national bottom line or show an improving state within a generation because of the scale of some of the issues we face. This does not mean reducing our efforts or lowering our ambitions for

these places, but we want to see all places reach wai ora, including the most degraded waterways. It is just that they will need the most effort to overcome the effects on their wellbeing of catchment modification and legacy contaminants.

Longer term

While improvements are expected to take a long time to achieve in some places, the scale of the task to repair the damage means we need to start now and continue working towards our destination of wai ora everywhere. The restoration of our estuarine environments is expected to take multiple generations and may require significant improvements in water quality in the upstream catchments. While changes in these environments may be incremental and small, they are highly valued and ecologically significant.

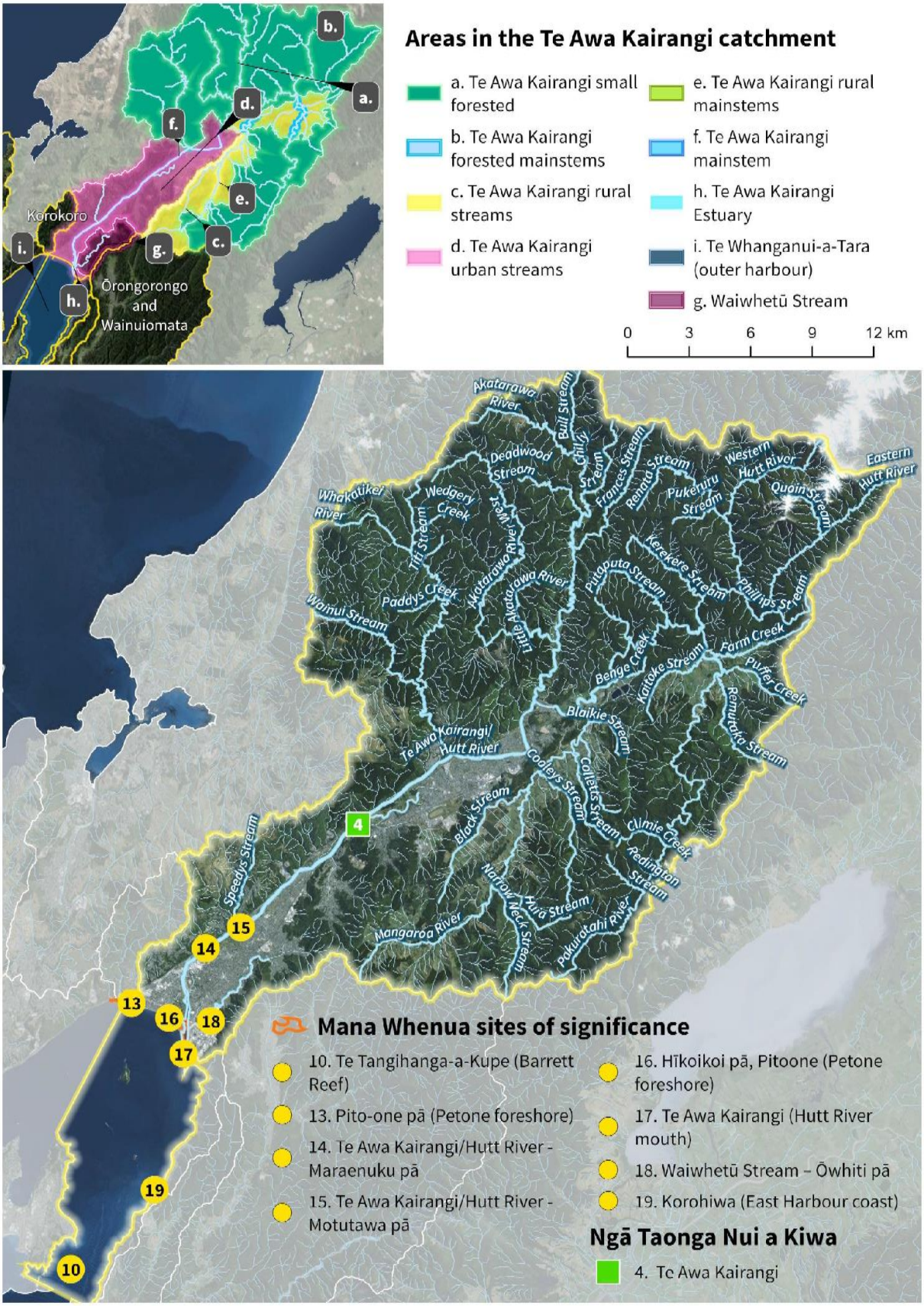
Some of the improvements illustrated in our first steps appear underwhelming because they reflect just how degraded many streams are and how much effort it will take to improve them. We know that these improvements do not reflect what the committee, mana whenua and the communities we have engaged with seek to reach. The longer-term column helps illustrate our aspirations and our intention of continuous improvements towards wai ora throughout the whaitua in subsequent generations. We do not know yet what this might take or how long it will take, but we are committed to reviewing and adjusting next steps as we learn more. We must hold to our aspirations and re-express them so that each generation knows we have been guided by high aspirations, and that our legacy to them reflects our best efforts, not a trade-off of their wellbeing for short-term gain.

The challenge of meeting human health standards for primary contact

The suitability of water for primary contact (such as swimming), in terms of risks to human health is measured in the NPS-FM using the *E. coli* attribute. The standard set for primary contact sites is very stringent and reflects a very low estimated risk of pathogenic infection. This standard is not currently met in non-forested catchments and some forested catchments across the whaitua.

If we are to improve primary contact safety across the whaitua, we need to have improvements in the state of the overall *E. coli* attribute, which we expect to see as a result of our recommendations. The high standard for primary contact sites is equivalent to the A state for the *E. coli* attribute. *E. coli* itself is not a problem, but it is a strong indicator for the presence of a range of pathogens that are less easy to monitor.

E. coli is entering water via a range of human, livestock and avian sources. Human and livestock sources pose the highest risk to human health, and human faecal contamination in particular must be eliminated because it disrespects Te Mana o te Wai and damages the mauri of water. These priorities are reflected in our recommendations. Our expectation is that the monitoring framework will enable us to track progress in the reduction of human and livestock sources, so that we can be confident that we are making a difference to risks to human health, even if *E. coli* levels from all sources do not yet meet the primary contact standard in the NPS-FM.


Areas in the Te Awa Kairangi catchment
a. Te Awa Kairangi small forested
b. Te Awa Kairangi forested mainstems
c. Te Awa Kairangi rural streams
d. Te Awa Kairangi urban streams
e. Te Awa Kairangi rural mainstems
f. Te Awa Kairangi mainstem
h. Te Awa Kairangi Estuary
i. Te Whanganui-a-Tara (outer harbour)
g. Waiwhetū Stream
0 3 6 9 12 km
Korokoro
Ōrongorongo and Wainuiomata
Akatarawa River
Deadwood Stream
Whakatikei River
Wedgery Creek
Paddys Creek
Wainui Stream
Te Awa Kairangi/ Hutt River
Western Hutt River
Eastern Hutt River
Quoin Stream
Pukeruru Stream
Kerekere Stream
Puttaputa Stream
Phillips Stream
Farm Creek
Benge Creek
Kaitoke Stream
Blaikie Stream
Cooleys Stream
Colletts Stream
Climie Creek
Redington Stream
Black Stream
Speedys Stream
Mangaroa River
Pakuratahi River
Mana Whenua sites of significance
10. Te Tangihanga-a-Kupe (Barrett Reef)
13. Pito-one pā (Petone foreshore)
14. Te Awa Kairangi/Hutt River - Maraenuku pā
15. Te Awa Kairangi/Hutt River - Motutawa pā
16. Hīkoikoi pā, Pitoone (Petone foreshore)
17. Te Awa Kairangi (Hutt River mouth)
18. Waiwhetū Stream – Ōwhiti pā
19. Korohiwa (East Harbour coast)
Ngā Taonga Nui a Kiwa
4. Te Awa Kairangi

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Catchment context and description

Te Awa Kairangi/Hutt River is the major river system in Te Whanganui-a-Tara and is made up of many unique parts. From the headwaters in the Tararua Ranges, water flows through small, forested streams, before travelling through a number of main stem rivers into the urban environment, and its smaller streams, and then out into Te Whanganui-a-Tara/Wellington Harbour.

The catchment is full of contrasts. The water supply areas and regional parks feature huge areas of native vegetation, while grassland and peatland dominate the Mangaroa Valley on the river's eastern side. The Western Hills are a mix of grassland, exotic forest, native vegetation and urban areas, while the entire length of the valley floor is heavily urbanised. State Highway 2 and the railway shadow the river from Lower Hutt to the base of the Remutaka Range. Te Awa Kairangi/Hutt River enters Te Whanganui-a-Tara/Wellington Harbour via the Hutt Estuary, which is surrounded by a heavily industrialised area at Seaview. The river also aligns with the main Wellington earthquake fault line. Over the centuries, successive earthquakes have raised the Hutt Valley and harbour and the beach has moved southwards.

Early European arrivals identified the Hutt valley as a good site for settlement, and in the 1840s to 1880s the entire floodplain was deforested to make way for development. However, as the population grew and the valley's forest cover reduced, flooding became a major issue. Stop banks and a narrowing of the river channel began to modify Te Awa Kairangi/Hutt River, and that process continues today. These works continue to have significant impacts on mahinga kai species, mana whenua sites of significance, and the mauri of the rivers and their tributaries. The Hutt Valley is now the most densely populated floodplain in New Zealand.

Residents in the Hutt Valley love their waterways, as they provide a sense of place and purpose and provide opportunities for recreation and revitalisation.

Te Awa Kairangi is a taonga and awa tupua (treasured ancestral waterbody) for Ngāti Toa Rangatira and Taranaki Whānui. Like all awa (rivers) in the Te Whanganui-a-Tara Whaitua, Te Awa Kairangi is a place for wānanga (traditional learning). Of note are the pā sites, the repō/wetlands and their uses for weaving dyes and building materials. Te Awa Kairangi traditionally sustained a large population and provided access to fish, rich gardening soils, forest birds and numerous wild plant foods.

As the largest river in Te Whanganui-a-Tara Whaitua, Te Awa Kairangi once sustained a large variety of fish species. Upstream of Kaitoke Weir the river is recognised for its outstanding indigenous ecosystem values and continues to support a variety of endemic wildlife, including endangered species (such as banded kōkopu, bluegill bully, giant bully, giant kōkopu, koaro, piharau, longfin tuna, redfin bully and shortfin tuna).

The river is of great importance as it is the largest source of freshwater in the region. Te Awa Kairangi provides most of the drinking water in the metropolitan Wellington area via water abstracted from the river at Kaitoke, groundwater in the Waiwhetū aquifer and artesian water at Petone.

Water takes, discharges and modifications to natural flow have had a significant effect on this awa, and while there is excellent water quality in the headwaters, it is vulnerable throughout its journey mai uta ki tai (from the inland to the sea).

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Waiwhetū

Waiwhetū Awa is located at the lower end of the Te Awa Kairangi valley and river mouth. While the lower reach of the Waiwhetū Stream is heavily channelised and polluted, the mid-range of the awa still retains āhua (natural character), and considerable investment in its restoration has brought the community together.

The stream is Ngā Taonga Nui a Kiwa for Ngāti Toa Rangatira and Taranaki Whānui. It traditionally held great significance as it sustained iwi over many centuries, with pā built on the banks (such as the Waiwhetū Pā, and Owhiti Pā). Te Awa Kairangi ngā ngutu awa (the river mouth), the Waiwhetū Stream and the Waiwhetū Estuary are important sources of mahinga kai, and places for te mahi mātaitai for kaimoana.

Te Whanganui-a-Tara (Wellington Harbour)

Te Whanganui-a-Tara (Wellington Harbour) is a Taonga Nui a Kiwa (place of outstanding importance) to Ngāti Toa Rangatira and Taranaki Whānui. The relationship of both iwi with the harbour is synonymous with their mana and identity.

Te Tangihanga-a-Kupe (Barrett's Reef) is but one example of the many places of significance to both Ngāti Toa Rangatira and Taranaki Whānui within Te Whanganui-a Tara. These places are valued for many reasons, including enabling whānau (family group) to carry out rituals and ceremonies, and also as places where mahinga kai (customary harvest) occurs.

Wellington Harbour is highly valued for its recreational activities, boating, fishing, diving and walking alongside it. Wellington Harbour is home to one of the busiest ports in the country, with thousands of commercial shipping movements in and out of the harbour each year. The Hutt Estuary and Wellington Harbour are impacted by discharges from Te Awa Kairangi (such as stormwater and wastewater discharges).

Main issues in this catchment

Te Awa Kairangi and Waiwhetū are typical of heavily urbanised catchments, with **urban development and encroachment, channelisation, pathogens and stormwater contaminants** degrading their water quality. The need to manage flood risk and the demands of providing sufficient potable water to meet the needs of the growing Wellington Region place pressure on waterways. The aquifer, which is an essential source of the current water supply system, is also at risk of being contaminated by the city built above it.

Wastewater overflows from a storage tank in Silverstream on average six times a year. In 2018 and 2019, this accounted for more than 60 per cent (~195,000m^3) of the total recorded wastewater overflows in the whaitua. The contaminants in these overflows present a significant challenge to improving the catchment's water quality. Our recommendations for preventing wastewater overflows and **network leaks**, and eliminating **stormwater contaminants**, are vital to achieving water-quality improvements in the Te Awa Kairangi catchment area.

Low-to-moderate intensity commercial farming and lifestyle properties are valued by our community, but can release **pathogens, nutrients and sediment** into local waterways if not managed well. We need better septic tank monitoring and performance, riparian protection and

livestock exclusion from waterways, improvements in hill country management and better localised and catchment group planning, as this will go a long way towards addressing these risks. Improved sediment management during forestry harvesting in the four main tributary catchments will also reduce risks to the health of the river and downstream environments.

The urban environment releases contaminants (such as metals, nutrients, pathogens and hydrocarbons) into Te Awa Kairangi and its tributary streams via the stormwater system. This has many effects on the quality of the water, the health of the aquatic life in the rivers, estuaries and Te Whanganui-a-Tara, and the people who live in the catchment. Shifting the health of Hutt Valley's urban streams will require a fundamental change in the hydrological effects of stormwater and the restoration of stream-bed forms and functions.

Given the **effects of the urban environment on water flows and stormwater**, the adoption of best-practice WSUD for urban redevelopments now and into the future will contribute to improvements in most water-quality attributes.

Urban development and encroachment in the valley has led to the need for flood control works (such as stopbank development and maintenance, river straightening, channel stabilisation and willow planting), to ensure the safety of people, property and infrastructure. It has also changed the form, function and habitat of the riverbed. We need fundamental changes in the hydrological effects of urban stormwater, enhancements in the form and function of stream-beds, and significant habitat restoration.

Many urban streams in Te Awa Kairangi have been modified in ways that stop native fish moving through catchments as they need to at different phases of their life. The advice we have received on **fish passage** remediation is that once all barriers have been identified, remediation should be feasible within 25 to 30 years. Remediation does not equate to removal – passage barriers can often be modified to meet the needs of specific species. When this is achieved, we expect to see the attribute state for fish in rivers to shift to an A state.

A wide range of unpredictable factors affect **toxic algal growth** (including water temperature, flow rates, nutrients and sediment), so addressing the problem is difficult and complex. Although there is no attribute for toxic algae they are a major concern, so we need a bespoke toxic algal bloom action plan that targets all of these factors.

The health of Te Awa Kairangi is affected by water use right across the whaitua, and also in Porirua. Current levels of **water abstraction** to meet drinking-water supply needs are creating issues for ecosystem health and recreation during low-flow periods, primarily in summer. The committee does not believe the current minimum flows provide for the health needs of the awa and Te Mana o te Wai. More responsible and respectful use of water, which enables minimum flows to be raised while also protecting the security of drinking-water supply, is necessary to restore the mauri of the water and will contribute to improvements in ecosystem health attributes.

The **Hutt Estuary and Te Whanganui-a-Tara harbour are affected by discharges** from Te Awa Kairangi, so our recommendations for improvements will also benefit these places.

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Pathway from current state to wai ora to guide our journey

Sub- catchment areas	Ecological health: Macroinvertebrates Current C	F	First steps S	G	Longer term	Periphyton Current C	F	First steps S	G	Longer term	Fish Current C	F	First steps S	G	Longer term	Human health: *E. coli* Current C	F	First steps S	G	Longer term
Te Awa Kairangi small forested	A		A	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi Forested mainstems	A		A	A		A		A	A		A		A	A		C		C	A	
Te Awa Kairangi Lower mainstem	B	↓	B	B		C	↓	C	B		A		A	A		D		D	C	
Te Awa Kairangi Rural mainstems	C		C	B		C	↓	C	B		B		B	A		D	↑	D	B	
Te Awa Kairangi rural streams	C		C	B		C	↓	C	B		B		B	A		D	↑	D	B	
Te Awa Kairangi urban streams	C	↓	C	C		C	↓	C	C		B		B	A		E		E	C	
Waiwhetū Stream	D		D	C		C	↓	C	C		A		A	A		E		E	C	
Te Awa Kairangi/Hutt Estuary *	C	↓↓	C	C		C	↓	C	C		Not applicable					C		C	B	
Te Whanganui-a-Tara (outer harbour) *	B	↓	B	B		A		A	A		Not applicable					C		C	B	

Sub- catchment areas	Ecological toxicity: Copper Current C	F	First steps S	G	Longer term	Zinc Current C	F	First steps S	G	Longer term	Nitrate Current C	F	First steps S	G	Longer term	Ammonia Current C	F	First steps S	G	Longer term
Te Awa Kairangi small forested	A		A	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi Forested mainstems	A		A	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi Lower mainstem	A	↓	A	A		A	↓	A	A		A		A	A		A		A	A	
Te Awa Kairangi Rural mainstems	A		A	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi rural streams	A		A	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi urban streams	B	↓	B	A		B	↓	B	A		A		A	A		A		A	A	
Waiwhetū Stream	C	↓	C	A		D	↓	D	B		A		A	A		B		B	A	
Te Awa Kairangi/Hutt Estuary *	A	↓	A	A		A	↓	A	A		Not applicable					Not applicable				
Te Whanganui-a-Tara (outer harbour) *	A	↓	A	A		A	↓	A	A		Not applicable					Not applicable				

Sub- catchment areas	Sediment: Clarity Current C	F	First steps S	G	Longer term	Deposited Current C	F	First steps S	G	Longer term	Phosphorus Current C	F	First steps S	G	Longer term	Dissolved oxygen Current C	F	First steps S	G	Longer term
Te Awa Kairangi small forested	A		A	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi Forested mainstems	A		A	A		A		A	A		B		B	A		A		A	A	
Te Awa Kairangi Lower mainstem	B		B	A		A		A	A		A		A	A		A		A	A	
Te Awa Kairangi Rural mainstems	D	↑	D	C		A		A	A		B	↑	B	A		A		A	A	
Te Awa Kairangi rural streams	B	↑	B	A		A		A	A		B	↑	B	A		A		A	A	
Te Awa Kairangi urban streams	D	↓	D	D		TBC					C		C	C		A		A	A	
Waiwhetū Stream	A	↓	A	A		Not applicable					D		D	C		B		B	A	
Te Awa Kairangi/Hutt Estuary *	Not applicable					B	↓	B	B		Not applicable					Not applicable				
Te Whanganui-a-Tara (outer harbour) *	Not applicable					D	↓	D	D		Not applicable					Not applicable				

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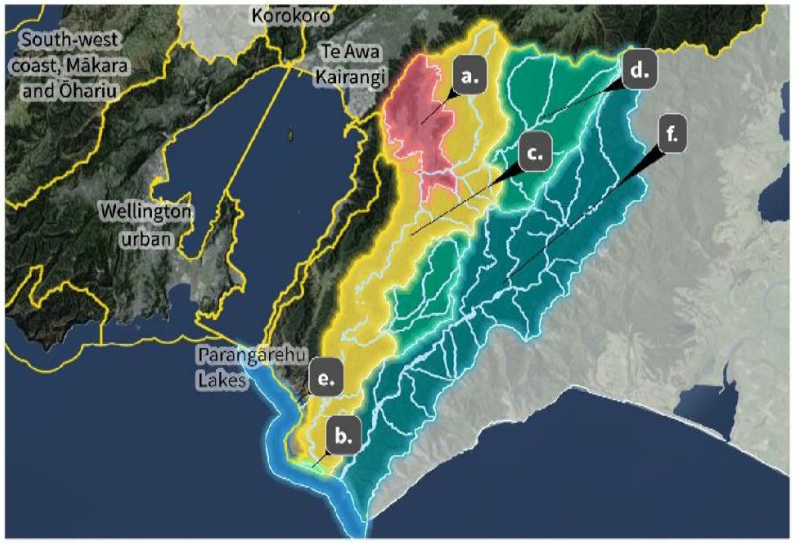
Table footnote

Current illustrates the **current** state assessment (C) and **forecast** change (F) if we did not change our current management of stressors upon that attribute. A single arrow (↓) indicates that deterioration within an attribute state is expected and a double arrow (↓↓) that an attribute state deterioration is expected. Forecasts have not been made in predominantly forested catchments, or for the deposited sediment and dissolved oxygen attributes.

The **first steps** describe the predicted states that are expected from implementing management solutions to at least maintain the current state in the **short term** (S) and full implementation of our recommendations in a **generation** (G). Those that have the same short-term and generation state are expected to have improvement within that attribute state within the generation.

'Longer-term' expresses our direction and intention for continuous improvements desired towards wai ora throughout the whaitua. However, based on current information and approaches we don't currently know what this might require or how long this might take.

*Coastal environments use attributes specific to those environments. However, they are shown under similar river attribute headers: Benthic Macroinvertebrates are presented under MCI, Macroalgae under Periphyton, *Enterococci* under *E. coli*, and Muddiness under Deposited Sediment.



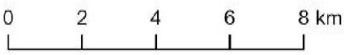
Areas in the Ōrongorongo and Wainuiomata catchment

- a. Wainuiomata urban streams
- b. Wainuiomata Estuary
- c. Wainuiomata rural streams
- d. Wainuiomata small forested
- e. Wai Tai (south-eastern coast)
- f. Ōrongorongo

Mana Whenua sites of significance

- 25. Wainuiomata River mouth and foreshore
- 26. Ōrongorongo River mouth

Wainuiomata River mouth and foreshore



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Catchment context and description

Ōrongorongo

The Ōrongorongo Awa is located to the east of the Wellington Harbour and runs almost parallel to the Wainuiomata River before entering takutai moana (the sea) on Wellington's south coast. While most of the catchment is covered in native bush (approximately 95 per cent), near the coast there is some low-intensity agriculture (sheep and beef). The catchment also provides important recreational opportunities for the wider Wellington population and is a popular area for tramping.

The awa (river) and surrounding taiao (environment) is valued for its āhua (natural character). The mātāpuna (headwaters) of Te Awa o Ōrongorongo is found in the Pākuratahi Forest and has pristine water quality. The upper reaches of the river contain an abundance of native vegetation, and rongoā (such as tītoki, makomako, manamana, kawakawa and rangiora) can be found.

The Ōrongorongo catchment has steep topography, highly erodible soils that are prone to slips, and is affected by large flood events. There are low numbers of wild animals like goats, pigs and deer.

The Ōrongorongo River and Big Huia Creek are both places in which surface water is abstracted for the community drinking water supply. The awa is also highly valued for its Māori customary and recreational uses.

The Ōrongorongo Swamp is the only montane-alluvial wetland in the region and is considered one of the most pristine wetlands, with exceptional native ecosystem value. The Ōrongorongo awa is braided and the river mouth is wāhi tapu (restricted use) and a site of significance to Taranaki Whānui.

Wainuiomata – Te Wai Nui ō Mata

The Wainuiomata catchment is made up of many unique parts. Te kuinga o te awa (the source of the river) is the Remutaka Ranges. The water flows through a number of small, forested streams before it passes through the suburb of Wainuiomata. In developed parts of the catchment, the river has been heavily modified and engineered to reduce flooding. The mainstem, and a number of smaller rural streams, then flow through primarily pastoral land before entering the ocean at Wellington's south coast, east of the harbour entrance. The awa (river) and its surrounding taiao (environment) is valued for its āhua (natural character).

The small, forested streams of the Wainuiomata and its tributaries (such as Catchpool Stream) are wai tapu, which are sacred places where rituals and ceremonies were practised by mana whenua. The water is Wai Mātua o Tūāpapa (virgin water) and tohi (baptism) and cultural immersion take place here. There are numerous Āku Waiheke (small streams) in the upper reaches of the whaitua with unique values and mana that should be recognised and protected.

The Wainuiomata River and George Creek are Wai Māori (fresh drinking-water sources), both being places in which surface water is abstracted for community drinking-water supply.

Many taonga species precious to mana whenua have been found in the mātāpuna (headwaters) of the awa, and in the mainstem, above Black Creek. The Wainuiomata River is also valued for its Māori customary and recreational uses. It supports a variety of activities, such as te hī ika (line fishing), te hao ika (netting) te hopu tuna (taking eels) and kaukau (swimming).

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The river finishes its journey in the East Harbour Regional Park where it discharges into the Cook Strait via the Wainuiomata Estuary. The Wainuiomata River mouth and foreshore are sites of significance to Taranaki Whānui, as well as key mahinga kai sites. The Wainuiomata Estuary contains habitat for, and is home to, many native fish migratory species and native birds that are taonga to mana whenua. The estuary is one of less than half a dozen sites along the South Wellington coastline that supports a breeding population of Tuturuwhatu (banded dotterels). Inanga spawning habitats are found in vegetation near river mouth.

Main issues in this catchment

Because the Ōrongorongo catchment is dominated by native forest from the headwaters nearly all the way to the sea, it is in excellent state with few pressures affecting its health. However, pastoral farming in the lower catchment may be having some effects, and the impacts of the current water abstraction levels require further investigation.

The Wainuiomata catchment, on the other hand, has a diverse range of land uses resulting in a range of water-quality issues and challenges. In urban areas, water is degraded due to **encroachment, channelisation, habitat removal, pathogens and stormwater contaminants**. Ongoing management of flood risks while restoring the mana to waterbodies (such as Black Creek) is going to be a major challenge. In rural areas, macroinvertebrate and fish habitats need to be improved through riparian vegetation planting and stock exclusion. Also, the demand for potable water needs to be met without diminishing Te Mana o Te Wai.

Over 40 per cent of the **wastewater** network in urban Wainuiomata is in a poor state and on average more than 20 **wastewater overflow** events occur every year. **Faecal contamination from rural and urban sources** has resulted in swimming holes (such as at Richard Prouse Park) no longer being safe for human contact, even in dry weather. This is a major concern, as people still visit and swim in these areas.

Our recommendations to address pathogens, particularly human sources from our wastewater network and septic tanks, are expected to improve the attribute state *for E. coli* in streams within a generation.

The low-to-moderate intensity commercial farming and lifestyle properties are valued by our community, but can release **pathogens, nutrients and sediment** into local waterways if not managed well. Our recommendations for improved septic tank monitoring and performance, riparian protection and livestock exclusion from waterways, improvements in hill country management, and better localised and catchment group planning will go a long way towards addressing these risks.

Urbanisation of Wainuiomata has seen contaminants (such as metals, nutrients, pathogens and hydrocarbons) appear in the small streams that feed into the Wainuiomata River via the stormwater and wastewater networks. Repairing the wastewater network and adopting best-practice WSUD for urban redevelopments now and into the future will reduce the sources of **stormwater contaminants** and go a long way to improving the catchment's overall water quality. Implementation of our recommendations will ensure that future urban intensification does not cause further degradation.

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Urban development and encroachment in Wainuiomata has seen the need for flood control works to ensure the safety of people, property and infrastructure. While necessary, these works have **altered the mauri of waterbodies by changing their form, functions and habitat**.

Black Creek runs through a heavily populated area of Wainuiomata and has the potential to provide for a range of community values. However, it acts more like a stormwater drain than a functioning stream and will require significant effort to restore its mana and mauri. A key first step is to give it back its name and to seek opportunities for habitat restoration.

The Wainuiomata and Ōrongorongo catchments are major sources of potable water. The priority for these catchments is to better understand the potential **effects of water abstraction on water quality** and Te Mana o Te Wai, especially during periods of low flow. It has been reported that sections of the Ōrongorongo River run dry during summer, and it is unclear whether water abstraction in the upper section is a contributor.

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Journey from current state to wai ora

Sub- catchment areas	Ecological health: Macroinvertebrates Current C	F	First steps S	G	Longer term	Periphyton Current C	F	First steps S	G	Longer term	Fish Current C	F	First steps S	G	Longer term	Human health: *E. coli* Current C	F	First steps S	G	Longer term
Ōrongorongo	A		A	A		A		A	A		A		A	A		A		A	A	
Wainuiomata small forested	A		A	A		A		A	A		A		A	A		A		A	A	
Wainuiomata urban streams	D	↓	D	D		C	↓	C	C		A		A	A		E		E	C	
Wainuiomata rural streams	C	↓	C	B		C	↓	C	C		A		A	A		D		D	C	
Wainuiomata Estuary*	B		B	B		A	↓	A	A		No targets					B		B	B	
Wai Tai (south-eastern coast)*	A		A	A		A		A	A		No targets					A		A	A	

Sub- catchment areas	Ecological toxicity: Copper Current C	F	First steps S	G	Longer term	Zinc Current C	F	First steps S	G	Longer term	Nitrate Current C	F	First steps S	G	Longer term	Ammonia Current C	F	First steps S	G	Longer term
Ōrongorongo	A		A	A		A		A	A		A		A	A		A		A	A	
Wainuiomata small forested	A		A	A		A		A	A		A		A	A		A		A	A	
Wainuiomata urban streams	B	↓↓	B	B		B	↓↓	B	A		A		A	A		B		B	A	
Wainuiomata rural streams	A	↓	A	A		A	↓	A	A		A		A	A		A		A	A	
Wainuiomata Estuary*	A	↓	A	A		A	↓	A	A		No targets					No targets				
Wai Tai (south-eastern coast)*	A		A	A		A		A	A		No targets					No targets				

Sub- catchment areas	Sediment: Clarity Current C	F	First steps S	G	Longer term	Deposited Current C	F	First steps S	G	Longer term	Phosphorus Current C	F	First steps S	G	Longer term	Dissolved oxygen Current C	F	First steps S	G	Longer term
Ōrongorongo	A		A	A		A		A	A		A		A	A		A		A	A	
Wainuiomata small forested	A		A	A		A		A	A		C		C	C		A		A	A	
Wainuiomata urban streams	D	↓	D	C		A		A	A		C		C	B		A		A	A	
Wainuiomata rural streams	D	↓	D	C		A		A	A		C		C	B		A		A	A	
Wainuiomata Estuary*	No targets					A	↓	A	A		No targets					No targets				
Wai Tai (south-eastern coast)*	No targets					A		A	A		No targets					No targets				

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Table footnote

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The **first steps** describe the predicted states that are expected from implementing management solutions to at least maintain the current state in the **short term** (S) and full implementation of our recommendations in a **generation** (G). Those that have the same short-term and generation state are expected to have improvement within that attribute state within the generation.

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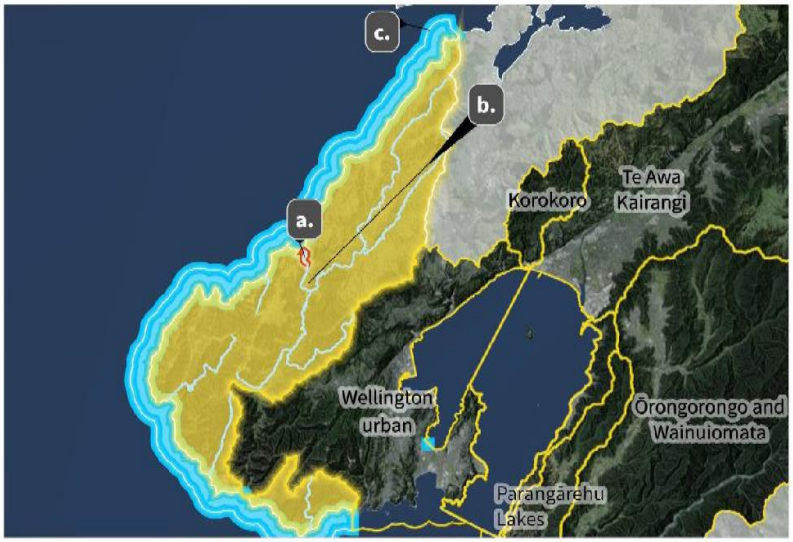

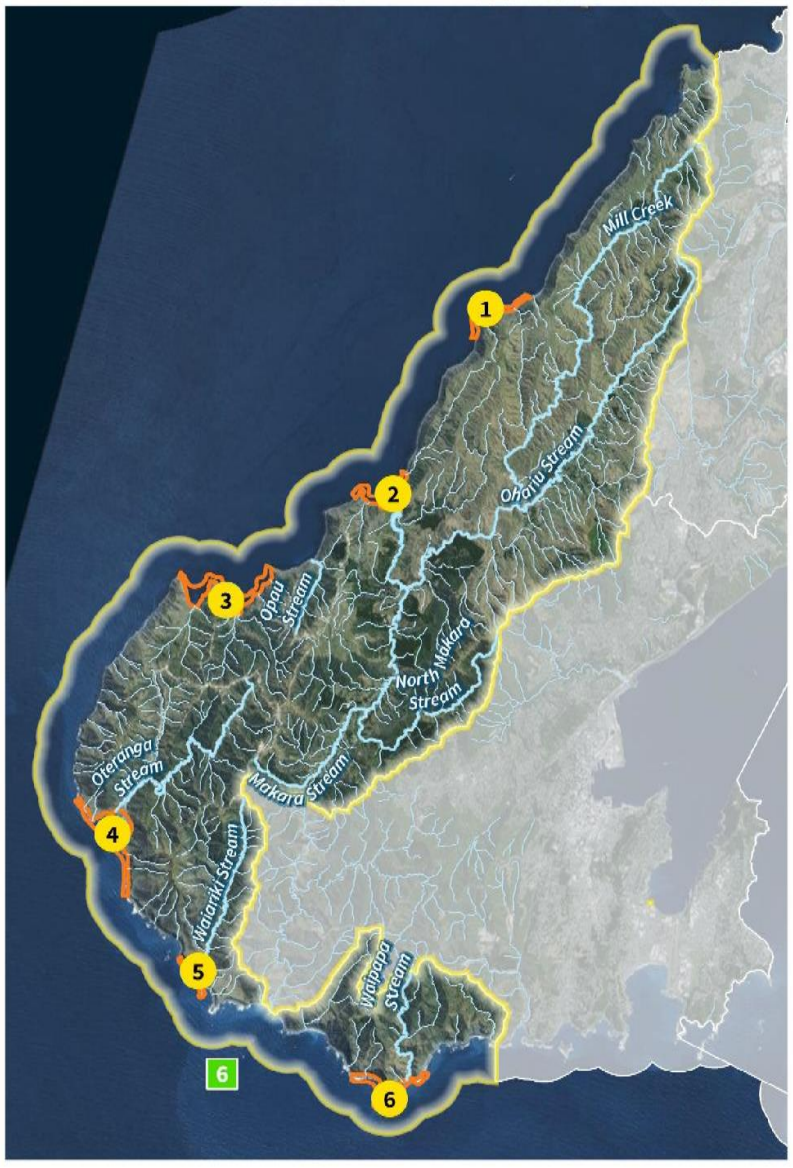

Areas in the South-west coast, Mākara and Ōhariu catchment

- a. Mākara Estuary
- b. South-west coast rural streams
- c. Wai Tai (south-western coast)

Mana Whenua sites of significance

1. Kie Kie/Kia Kia (Ngutu Kākā pā) (Pipinui Point)
2. Ōhariu - Wharehou Bay
3. Te Ika a Maru - Ohau Bay
4. Ōterongo Bay
5. Waiariki Stream mouth and coast
6. Te Rimurapa - Pariwhero (Sinclair Head - Red Rocks)

Ngā Taonga Nui a Kiwa

6. Raukawa Moana

Mākara Estuary and Ōhariu - Wharehou Bay

0 2.5 5 7.5 10 km

Catchment context and description

The south-west coastal catchments are characterised by steep, scrub and pasture-covered hills above valleys that are generally aligned with fault lines. The streams in these valleys run to the Cook Strait in the south and toward the Tasman Sea in the west. Much of the land was covered in dense podocarp forest until clearance for farming in the late 1800s. Gold prospecting in the mid-to-late 1800s led to a boom in population growth in the western area. Mākara Beach was home to a small fishing community in the early 1900s and is now a popular spot for launching small fishing boats and diving. Its coastal dunes were removed during World War II, modifying the stream mouth.

In more recent years, many small 'lifestyle blocks' have been established in Ōhariu and Mākara, generally along the waterways and each with its own septic system. Two windfarms built in the late 2000s cover a significant area, with sediment management being a focus at the time of construction. Small tributaries provide drinking water for a number of households.

Much of the eastern and coastal areas have reverted to scrub or native bush, and the north-west area has been largely maintained in pasture. The modified environment means that storm runoff moves more quickly down the catchment, which in turn has increased downstream flood risk and streambank erosion.

There are many āku waiheke (small streams) and head water mātāpuna (springs) in the whaitua that flow into the Mākara Stream. These have unique values that must be recognised and protected. The stream and its corridor support many mahinga kai plants like harakeke, raupō, watercress, puha and fernroot, and plants for weaving and rongoā (healing).

The Mākara Estuary and river mouth is recognised as a significant natural wetland and is the only remaining salt marsh estuary on the Wellington Peninsula. It is an important refuge for feeding and nesting birds (such as pied shag, red-billed gull, white-fronted tern, black shag, pied stilt, and variable oystercatcher). The salt marsh also provides seasonal or core habitat to threatened indigenous fish species (such as longfin eel, giant kōkopu, kōaro, inanga, redfin bully, bluegill bully and piharau). The Mākara Estuary has silted up due to high sediment loads coming from further up the catchment.

While the most noteworthy mana whenua values in this area are mahinga kai and kaimoana, the estuary is also recognised for other special values (such as waka, healing from the ocean, and the cleansing qualities of the wind). Ngāti Toa Rangatira identify the southwest coast as a very important mahinga mataitai (customary seafood gathering area) and wāhi kōrero I tuku iho (intergenerational knowledge transfer area). Ohariu Pā is found on Mākara Beach, and is of significance to Ngāti Tama. Similarly, the wider Wellington community highly values the kai moana provided by the surrounding South Coast area.

The local communities include many small properties and a handful of large sheep/beef farms (some residents having multigenerational connections to the area), most with additional sources of income alongside farming. Farming is valued by the community and is very low intensity, largely due to the catchment's topography and climate (with most land classed as LUC 6+). There are only small pockets of production forestry. Several landowners and local community groups are working to improve water quality in the area.

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The area also supports recreational opportunities for the wider Wellington community, with mountain biking, walking and four-wheel drive tracks and venues for functions. Intensive pest control is currently underway, in order to release kiwi in the area within the next couple of years.

Aside from the Mākara Estuary, all streams in the area discharge straight to a very dynamic coastal environment that is thought to quickly dissipate most contaminants, particularly on the South Coast.

Main issues in this catchment

The south-west coastal catchments and streams are subject to several environmental pressures and are in a deteriorated or fair state. **Sediment loss** is a significant issue in several streams in this area. The historical clearance of steep land for farming has left the more vulnerable land unstable and prone to erosion. Alongside this, a **lack of stream-bank vegetation and livestock exclusion** from waterways means stream margins are more prone to erosion during periods of high rainfall and **habitat for aquatic life and ecosystem health is reduced**.

Faecal contamination and high pathogen concentrations are issues in both dry and wet weather for the catchments, and monitoring shows the Mākara Stream has levels considered unsuitable for human contact. The main sources of faecal contamination are likely to be ruminants and wildfowl, with septic tanks and horses also potential sources. Reducing *E. coli* in this mostly rural catchment will require additional, locally specific diagnostic assessments to identify the sources of dry and wet weather exceedances, particularly dry weather contamination.

Because of the steep terrain, for the most part the 2020 stock exclusion regulations do not apply, meaning that achieving improvements for *E. coli* will require additional actions. The vulnerability of small streams to discharges and damage from stock and septic tanks is an ongoing risk. Their relatively small size makes them disproportionately vulnerable to E. coli and sedimentation caused by cattle grazing, plantation forestry and water takes.

These catchments are priority areas for dedicated land management support and coordinated catchment planning. The focus needs to be on identifying critical source areas for contaminants, reducing stock access to waterways, establishing riparian vegetation, the retirement or reforestation of some areas, and good maintenance of household septic systems.

We have heard from mana whenua that whānau (family group) could traditionally swim, and harvest and consume kaimoana like tuna, mullet, and pipis, without becoming māuiui (unwell). Areas where paua once lived have now completely disappeared, except in Ohau North where there are lots of small, undersized paua. There is also immense pressure on coastal resourcing from poaching.

Mākara Estuary and the coastal waters are highly valued areas and the local community has already made substantial efforts to restore them. Because of the slow response rate to stressors, improvement will take time, but can be achieved through mitigations further up the catchment. Although naturally low in diversity, Mākara Estuary supports an even sparser benthic macroinvertebrate community than expected because of the impact of **muds and sediment** in particular. Reducing sediment inputs through improved practices up the catchment, and better flushing over generations, will lead to small improvements.

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Journey from current state to wai ora

Sub- catchment areas	Ecological health: Macroinvertebrates					Ecological health: Periphyton					Ecological health: Fish					Human health: *E. coli*				
	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term
	C	F	S	G		C	F	S	G		C	F	S	G		C	F	S	G	
South-west coast rural streams	C	↓	C	C		C		C	C		A		A	A		E		E	D	
Mākara Estuary *	D		D	D		C		C	C		No targets					C		C	C	
Wai Tai (south-western coast) *	A		A	A		A		A	A		No targets					A		A	A	

Sub- catchment areas	Ecological toxicity: Copper					Ecological toxicity: Zinc					Ecological toxicity: Nitrate					Ecological toxicity: Ammonia				
	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term
	C	F	S	G		C	F	S	G		C	F	S	G		C	F	S	G	
South-west coast rural streams	A		A	A		A		A	A		A		A	A		A		A	A	
Mākara Estuary *	A	↓	A	A		A	↓	A	A		No targets					No targets				
Wai Tai (south-western coast) *	A		A	A		A		A	A		No targets					No targets				

Sub- catchment areas	Sediment: Clarity					Sediment: Deposited					Phosphorus					Dissolved oxygen				
	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term
	C	F	S	G		C	F	S	G		C	F	S	G		C	F	S	G	
South-west coast rural streams	D	↓	D	C		D		D	C		D	↓	D	C		A		A	A	
Mākara Estuary *	No targets					C	↓↓	C	B		No targets					No targets				
Wai Tai (south-western coast) *	No targets					A	↓	A	A		No targets					No targets				

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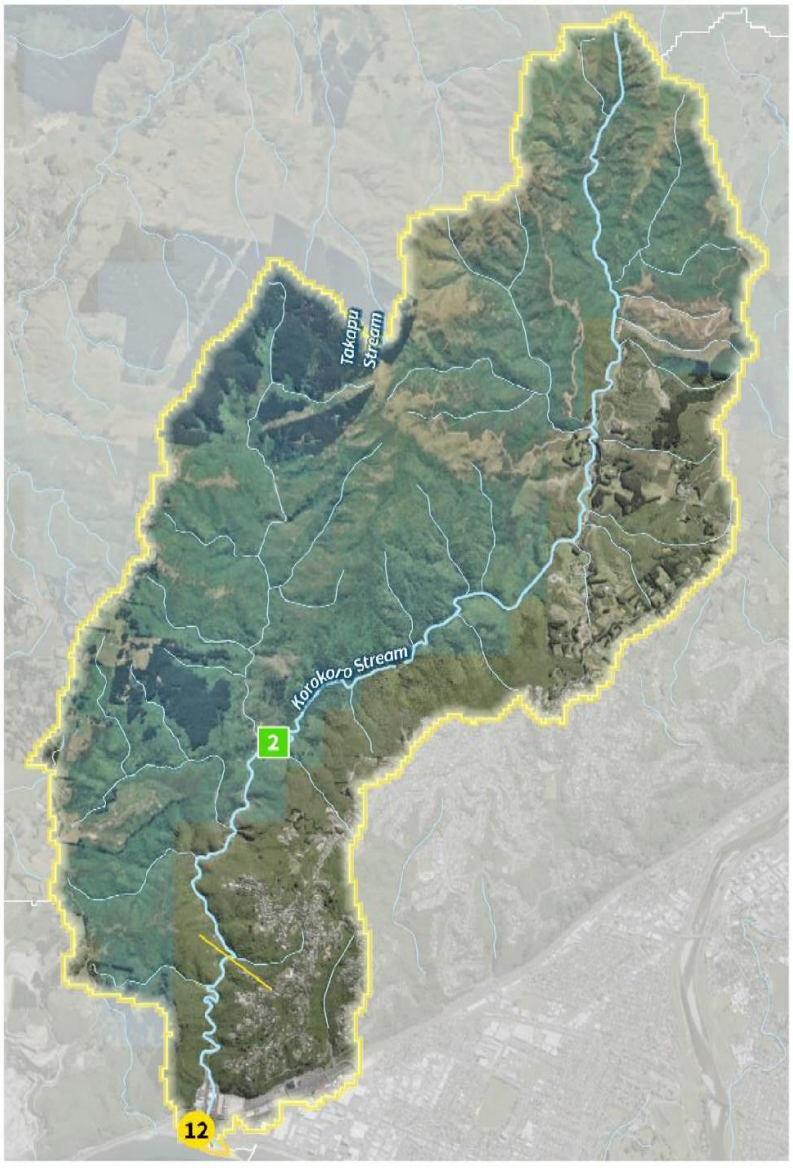
Areas in the Korokoro catchment

a. Korokoro Estuarry
b. Korokoro Stream



Mana Whenua sites of significance

12. Te Korokoro o Te Mana (Korokoro Stream mouth)

Ngā Taonga Nui a Kiwa

2. Te Korokoro o Te Manu

Te Korokoro o Te Mana (Korokoro Stream mouth)

0 0.5 1 1.5 2 km

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Catchment context and description

The Korokoro Stream originates in Belmont Park and drains approximately 8km to the Wellington Harbour, under State Highway 2 and through a small estuary. The headwaters are primarily forested scrublands and indigenous forest with some rural land use activities and urban development along the foothills in the suburb of Korokoro.

Retaining much of its original āhua (natural character), Te Korokoro o Te Mana is a Taonga for Taranaki Whānui, and it is also protected as a site of significance in the PNRP.

Korokoro Stream is recognised as an exemplar catchment in line with its cultural status as Te Korokoro o Te Ika a Maui (the throat of the fish of Maui). This is reflected in the gurgling sounds made by the stream.

The catchment has a long history of industrial and municipal use. There are two old dams along the Korokoro Stream that are more than 100 years old. One was used for the local community's municipal supply, the other by a wool mill. These original municipal and industrial uses are now gone. The catchment is mainly used for recreation by locals. It is mostly contained within Belmont Regional Park, which contains a popular and accessible walking track, and is also known for its trout fishery.

Te Mātāpuna of the Korokoro Stream are still pristine and have provided Taranaki Whānui with a vital supply of high-quality drinking water for the Pito-one Pā for many generations. The stream is of exceptional value to iwi due to the abundant spiritual sustenance it provides. Whānau (family group), hapū and iwi carry out rituals, collect rongoā, and continue to share stories of its healing practices and teachings. It is also mahinga kai (food gathering area) for the hapū of Taranaki Whānui and Te Ātiawa, particularly renowned for whitebait, longfin tuna and shortfin tuna.

The Pito-one Pā / Te Tatau o te Po on the Petone foreshore is a significant wāhi ahurea (historical site) positioned near the mouth of Te Korokoro o Te Mana.

Mana whenua expect that the unique and special values associated with Te Korokoro o Te Mana will be enhanced through the recognition of the persona of the awa and restored through active management.

Main issues in this catchment

Much of the upper Korokoro catchment has regenerating forest cover, resulting in a good current state for most of the freshwater ecological attributes. However, where pastoral grazing and urban development is occurring, water quality has degraded and will continue to do so without interventions.

Low-to-moderate intensity pastoral land use occurs in the upper Korokoro catchment and is a source of **sediment and nutrients** to streams and headwater gullies. This pressure will reduce over time as Belmont Regional Park transitions out of pastoral land use and farm and catchment planning becomes common practice. Sedimentation from plantation forestry harvest needs to be managed well to reduce this pressure.

Urban development is the biggest risk to Korokoro water quality. If not managed appropriately to our recommendations, the Korokoro catchment could quickly be affected by **stormwater**

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contamination, hydrological changes and channel modifications associated with urbanisation. We recommend the adoption of best-practice WSUD for urban redevelopments now and into the future.

Modification, channelisation and de-vegetation of the Korokoro Estuary and lower stream reaches has reduced overall stream health in this area, including the total removal of inanga spawning habitat. Locally specific assessments and catchment planning with mana whenua and communities will identify the best places for habitat restoration in some urban and rural sub-catchments.

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Journey from current state to wai ora

Sub- catchment areas	Ecological health															Human health				
	Macroinvertebrates					Periphyton					Fish					*E. coli*				
	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term
	C	F	S	G		C	F	S	G		C	F	S	G		C	F	S	G	
Korokoro Stream	B	↓	B	A		B	↓	B	B		A		A	A		C		C	B	
Korokoro Estuary *	C	↓↓	C	C		B	↓	B	B		No targets					C		C	B	

Sub- catchment areas	Ecological toxicity																			
	Copper					Zinc					Nitrate					Ammonia				
	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term
	C	F	S	G		C	F	S	G		C	F	S	G		C	F	S	G	
Korokoro Stream	A		A	A		A		A	A		A		A	A		A		A	A	
Korokoro Estuary *	A	↓	A	A		A	↓	A	A		No targets					No targets				

Sub- catchment areas	Sediment										Phosphorus					Dissolved oxygen				
	Clarity					Deposited														
	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term	Current		First steps		Longer term
	C	F	S	G		C	F	S	G		C	F	S	G		C	F	S	G	
Korokoro Stream	A	↓	A	A		A		A	A		B		B	A		A		A	A	
Korokoro Estuary *	No targets					A	↓	A	A		No targets					No targets				

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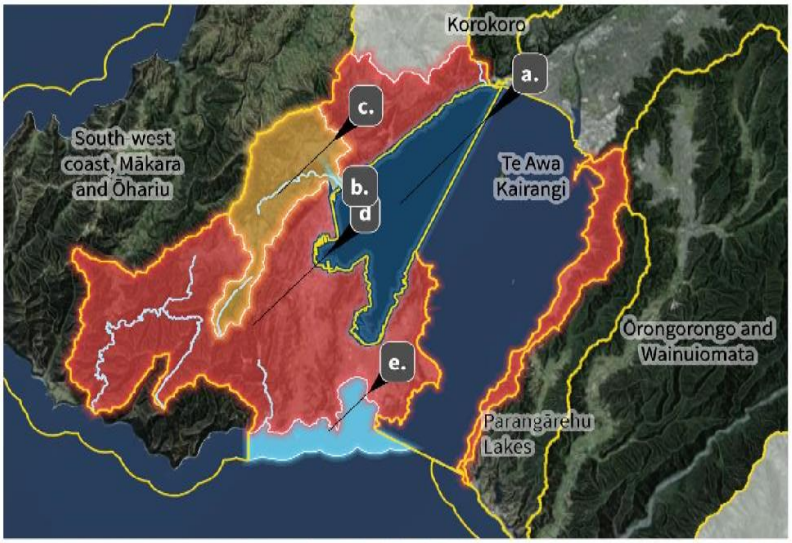

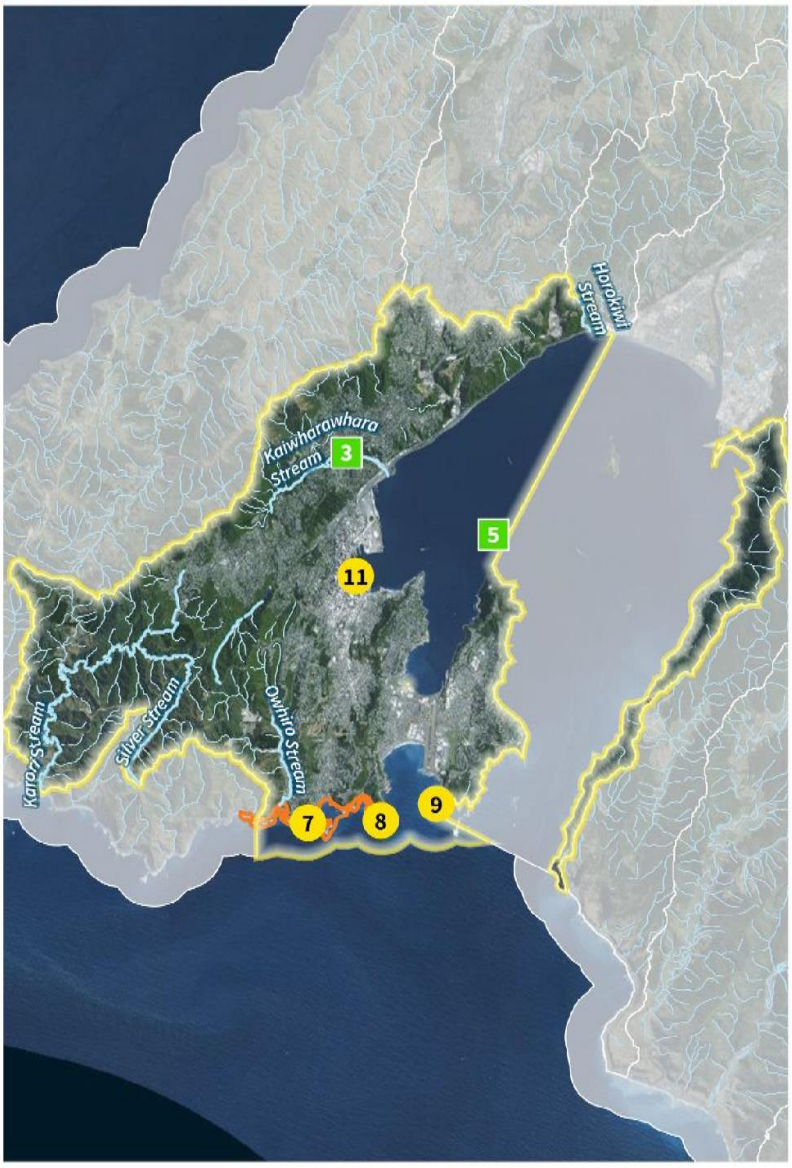

Areas in the Wellington urban catchment

- a. Te Whanganui-ā-Tara (inner harbour)
- b. Kaiwharawhara Estuary
- c. Kaiwharawhara Stream
- d. Wellington urban
- e.Wai Tai (southern coast)

Mana Whenua sites of significance

- 7. Tapu te Ranga - Owhiro - Haewai
- 8. Te Raekaihau Point reef
- 9. Hue te Taka (Wellington south coast)
- 11. Te Aro pā

Ngā Taonga Nui a Kiwa

- 3. Te Awa o Kaiwharawhara
- 5. Te Whanganui-ā-Tara

Hue te Taka

0 2 4 6 8 km

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Catchment context and description

The main streams in the Wellington urban area are the Kaiwharawhara, Karori and Ōwhiro Streams, which flow to the Whanganui-a-Tara inner harbour or out to the South Coast and the Cook Strait. Wellington City and its surrounds are mainly urban areas with some indigenous vegetation on the city fringes, town belt and in the headwaters of streams. Some rural land use activities are undertaken in tributaries of the Karori Stream.

Kaiwharawhara is the largest stream system in Wellington city and one of the few remaining streams that has a relatively natural estuary mouth into the harbour. The stream runs around the west of Te Ahumairangi (Tinakori Hill), the maunga (mountain) that surrounds and sustains the city of Wellington.

Te Manga o Kaiwharawhara and its environs are considered significant to both the history and continued wellbeing of the Te Ātiawa and Taranaki Whānui people. The stream is also a site of wāhi whakarite (preparing for an important activity/event) and was used for rituals (such as planting at Puanga/Matariki).

As the population of Wellington has grown over time, the urban footprint has expanded and densified. The proximity and accessibility to our homes means these urban streams are highly valued, and have great potential for people to reconnect to their local waterways and get involved in their improvement.

The Kaiwharawhara catchment is the gateway for people entering and exiting the city with the major transport corridors of State Highway 1 and the North Island main railway running through it. The approach to urban development and transportation has seen many streams piped, or in concrete channels and parts of the inner harbour reclaimed, for the central business district and Port.

Despite the surrounding environment being heavily urbanised and the stream experiencing pressures from urban land uses (such as from stormwater), the Kaiwharawhara Stream has high ecological and cultural values. Kia Mauri/mouriora te Kaiwharawhara (Sanctuary to Sea) is a project funded to continue the creation and restoration of indigenous fish habitat, which includes spawning sites. Monitoring is also carried out at Zealandia where te mātāpuna are found.

Āku Waiheke (the many small streams) of Wellington have been largely lost through piping, contamination and infill. This is a significant issue for mana whenua who retain aspirations that their streams are wherever possible day-lighted and their mana and mauri (wellbeing) restored.

The Kaiwharawhara Pā was located near the stream mouth and remains a significant site for Taranaki Whānui forming the original gateway into Wellington.

The Cook Strait also faces considerable pressure from stormwater and wastewater discharges from these areas. This is a critical issue for mana whenua due to the impacts these discharges are having on mahinga kai, cultural and recreational use, and there is currently very little data or understanding of their effects.

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Main issues in this catchment

Wellington City streams suffer from a wide range of stressors and are generally in a poor state. Most **streams in the city have been heavily modified or piped**, with only small (mainly headwater) reaches still open to daylight. We risk losing connection with our urban streams and the values they provide if the current trend of reclamation and encroachment continues, while the streams themselves lose their mauri and life-supporting capacity.

Around one-third of Wellington City's **wastewater network is in a poor state** (i.e., broken and leaking) and in need of repair, and **wastewater overflows** are a common occurrence. Faecal contamination of the accessible streams (such as Kaiwharawhara, Ōwhiro and Karori) means they are not safe for human contact, even in dry weather. More recently, small 'lifestyle blocks' have appeared in some of the main valleys (such as South Karori, Long Gully and towards Mākara), generally along the waterways and each with its own septic system.

Our recommendations target the improvement in *E. coli* to achieve the C state in a generation and we believe the journey of further improvement must continue from there. This involves institutions and residents taking responsibility, fixing all **cross-connected storm and wastewater networks** and eliminating overflows to a rare occurrence, as well as the picking up of **dog faeces and septic tank management**.

Landfills (historic and current), as well as other **contaminated sites**, are also leaching toxicants into streams and this needs to be addressed.

Reducing sediment and improving the state of ecosystem health in Wellington's urban streams will require fundamental changes in the **hydrological effects of urban stormwater**, enhancements in the form and function of stream-beds, and significant habitat restoration. Projects of this scale go beyond our general recommendations and require locally specific diagnostic assessments and integrated catchment planning. It would also have implications for current land use, as the restoration of streams would involve rebuilding their habitats and meandering forms.

The Wellington City catchments that have been identified for **intensification and infill housing** will need careful management not to further exacerbate the pressure on our already **stressed urban streams**. We recommend the adoption of best-practice WSUD for urban redevelopments now and into the future.

Urban development, encroachment and catchment imperviousness (these increase peak flow rates during rainfall) have resulted in the need for flood control works, including river straightening, channel stabilisation and vegetation removal to ensure the safety of people, property and infrastructure. But this has also **changed the form, function and habitat of streams** in these urban catchments. Many streams are affected by **lack of space, no vegetation for shading, abnormal flows from stormwater, contaminants and straightening**. Some streams do have shading and space, but are still affected by abnormal flows, contaminants and flooding defences.

Many urban streams have been modified in ways that provide **barriers to fish** from moving through catchments as they need to at different phases of their life. The advice we have received on fish passage remediation is that once all barriers have been identified, remediation should be feasible within 25 to 30 years. Remediation does not equate to removal – passage barriers can often be

modified to meet the needs of specific species. When this is achieved, we expect to see this attribute state shift to an A state.

The **channelisation of the Kaiwharawhara Estuary** means its natural processes no longer operate as they should. Contaminants are flushed through the concrete channel and it has an 'artificial' A state for most 'water-quality' parameters. An unusual challenge associated with restoring the habitat and natural processes in Kaiwharawhara Estuary is that while ecosystem health and cultural values may increase, other parameters may reduce as flows slow down through the estuary and contaminants can accumulate. Catchment actions to reduce the inputs may help, but it's uncertain if this would be sufficient to maintain an A state for these parameters.

In **Te Whanganui-a-Tara harbour**, although current state assessments reflect the whole inner harbour, there are **hotspot sites for metals contamination** in benthic sediment, particularly around the Queens Wharf and Port areas and stormwater outfalls. Our recommendations will help prevent further degradation.

Depositional basins will always have naturally high muddiness and it is difficult to improve significantly, although improvements within the D state (A state for Evan's Bay) may occur over time.

Benthic macroinvertebrates will likely improve within the existing state as these are associated with legacy effects to sediment and metals. This gradual shift will take multiple generations for the worst sites and potentially shorter timeframes at more resilient sites.

Enterococci in the inner harbour sites should improve to a B state with improvements to infrastructure.

The open coastal waters are in a good state, although sediment inputs and faecal contamination after rainfall may continue to impact recreation at Karori Stream and Ōwhiro Bay, and the collection of mahinga kai at these sites is likely to continue to be affected.

This stretch of coastline which contains the Taputeranga Marine Reserve may also be affected by poorly understood freshwater impacts, including emerging contaminants.

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Journey from current state to wai ora

Sub- catchment areas	Ecological health: Macroinvertebrates Current C	Macroinvertebrates Current F	Macroinvertebrates First steps S	Macroinvertebrates First steps G	Macroinvertebrates Longer term	Ecological health: Periphyton Current C	Periphyton Current F	Periphyton First steps S	Periphyton First steps G	Periphyton Longer term	Ecological health: Fish Current C	Fish Current F	Fish First steps S	Fish First steps G	Fish Longer term	Human health: *E. coli* Current C	*E. coli* Current F	*E. coli* First steps S	*E. coli* First steps G	*E. coli* Longer term
Kaiwharawhara Stream	C	↓	C	C		C		C	C		A		A	A		E		E	C	
Kaiwharawhara Estuary *	C		C	C		A		A	A		No targets					C		C	B	
Wellington urban	C	↓	C	C		C		C	C		A		A	A		E		E	C	
Wai Tai (southern coast) *	B		B	B		A		A	A		No targets					B		B	B	
Te Whanganui-a-Tara (inner harbour) *	B	↓↓	B	B		A		A	A		No targets					C		C	B	

Sub- catchment areas	Ecological toxicity: Copper Current C	Copper Current F	Copper First steps S	Copper First steps G	Copper Longer term	Zinc Current C	Zinc Current F	Zinc First steps S	Zinc First steps G	Zinc Longer term	Nitrate Current C	Nitrate Current F	Nitrate First steps S	Nitrate First steps G	Nitrate Longer term	Ammonia Current C	Ammonia Current F	Ammonia First steps S	Ammonia First steps G	Ammonia Longer term
Kaiwharawhara Stream	C	↓↓	C	B		B	↓↓	B	A		B		B	B		B		B	B	
Kaiwharawhara Estuary *	A		A	A		A		A	A		No targets					No targets				
Wellington urban	D	↓	D	C		B	↓↓	B	A		B		B	B		B		B	B	
Wai Tai (southern coast) *	A	↓↓	A	A		A		A	A		No targets					No targets				
Te Whanganui-a-Tara (inner harbour) *	A	↓↓	A	A		B	↓↓	B	B		No targets					No targets				

Sub- catchment areas	Sediment: Clarity Current C	Clarity Current F	Clarity First steps S	Clarity First steps G	Clarity Longer term	Deposited Current C	Deposited Current F	Deposited First steps S	Deposited First steps G	Deposited Longer term	Phosphorus Current C	Phosphorus Current F	Phosphorus First steps S	Phosphorus First steps G	Phosphorus Longer term	Dissolved oxygen Current C	Dissolved oxygen Current F	Dissolved oxygen First steps S	Dissolved oxygen First steps G	Dissolved oxygen Longer term
Kaiwharawhara Stream	B	↓	B	A		A		A	A		D		D	C		A		A	A	
Kaiwharawhara Estuary *	No targets					A		A	A		No targets					No targets				
Wellington urban	D	↓	D	C		B		B	B		D		D	D		A		A	A	
Wai Tai (southern coast) *	No targets					A	↓	A	A		No targets					No targets				
Te Whanganui-a-Tara (inner harbour) *	No targets					D	↓	D	D		No targets					No targets				

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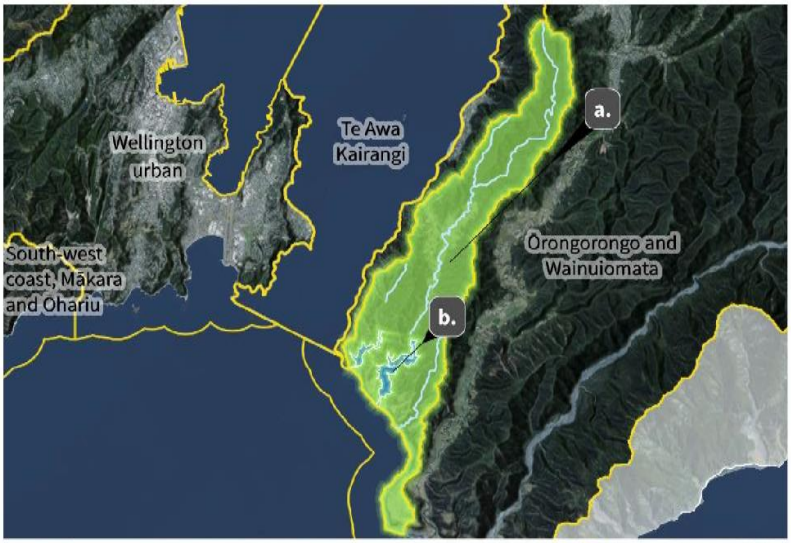
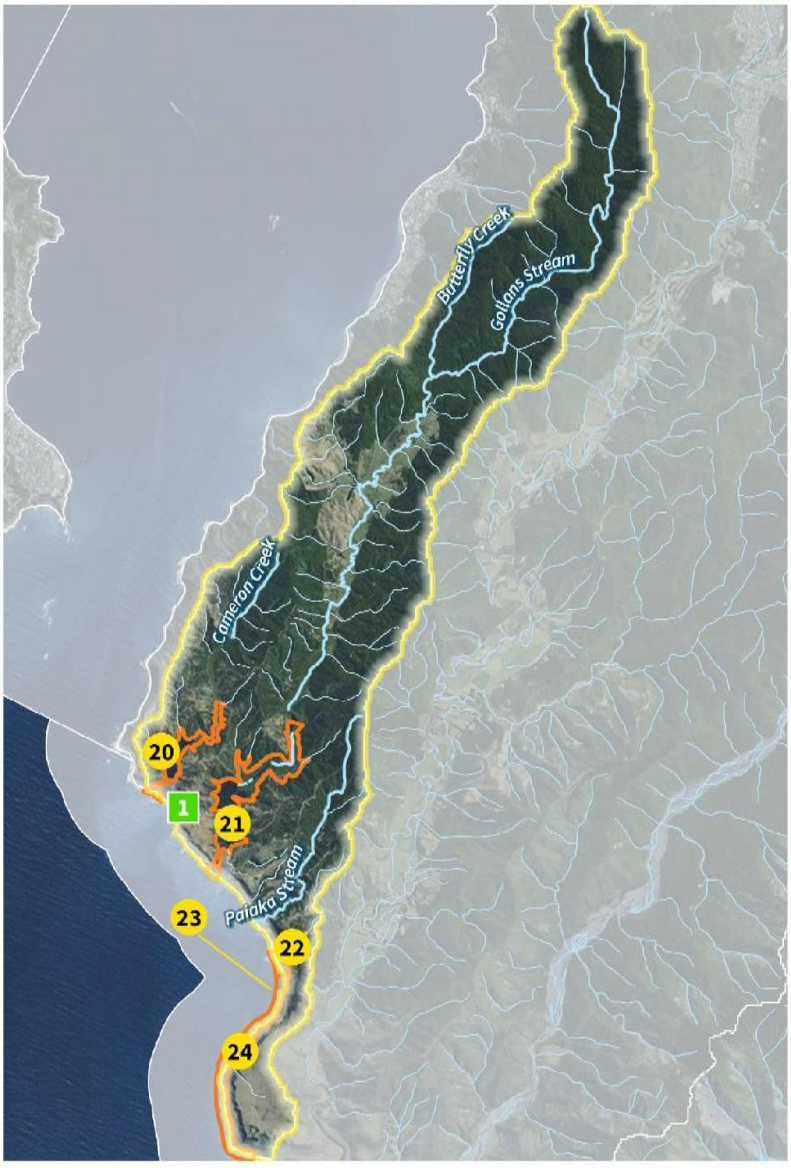


Areas in the Parangārehu Lakes Catchment

a. Parangārehu catchment streams
b. Parangārehu Lakes



Mana Whenua sites of significance

20. Parangārehu Lakes, Kohangapiripiri
21. Parangārehu Lakes, Kohangatera
22. Ōkākaho Stream
23. Parangārehu (Fitzroy Bay)
24. Baring Head/ Ōruapouanui

Ngā Taonga Nui a Kiwa

1. Parangārehu Lakes

Parangārehu Lakes

0 1 2 3 4 km

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Catchment context and description

The Parangārehu Lakes (Parangārahu is also an appropriate usage) are two small, shallow, coastal lakes situated on the southern coastline within the East Harbour Regional Park. This catchment area includes these lakes and the upstream and surrounding short coastal-facing land of Baring Head. The headwaters of Lake Kōhangaterā includes Gollan's Stream with wetland, pastoral and native forest areas, as well as the popular Butterfly Creek recreational area. The Lake Kōhangapiripiri catchment, the smaller of the two, is mainly indigenous forest and regenerating scrublands, with significant wetlands to the north of the lake.

These lakes are highly valued by the wider community for recreational activity and their impressiveness. The Kōhangaterā and Kōhangapiripiri Lakes have many important values, including as outstanding wetlands and water bodies for indigenous biodiversity values, Ngā Taonga nui a kiwa and sites of significance to Taranaki Whānui, and are regarded as nationally significant lakes of their type. The presence of these lakes is a 'jewel in the crown' in this whaitua and they are outstanding.

Gollan's Stream is the primary kuinga (source) of wai entering Lake Kōhangatera and is a place of great beauty and pristine waters. Te mātāpuna o te manga (the headwaters of the stream) are found in the undisturbed beech forest of the Eastbourne hills. This forest also forms part of the East Harbour Regional Park and it is managed by Greater Wellington.

Historically, Lake Kōhangaterā was a superior fishery for Taranaki Whānui. Karaka groves were planted alongside the lakes as a food source and the tributaries contain raupō beds. The area was a summer camp for whānau (family group) as they fished not only the lakes but the sea. Important mahinga kai sites in the area include Ōkākaho Stream, Parangārehu (Fitzroy Bay), Ōruapouanui/Baring Head and Kōhangaterā Lake, where species (such as longfin and shortfin tuna, mullet, kahawai and whitebait) were found. These sites are also puna rongoā and puna raranga (a source of medicinal and weaving material).

The Port Nicholson Block (Taranaki Whanui ki Te Upoko o Te Ika) Claims Settlement Act 2009 came into force on 5 August 2009, which transferred ownership of the lakebeds of Lake Kōhangapiripiri and Lake Kōhangaterā, the esplanade land surrounding both lakes and the dendroglyph site to the Port Nicholson Block Settlement Trust (PNBST). Greater Wellington and the PNBST jointly manage the Parangārehu Lakes Area through a 'Rōpū Tiaki' or guardianship group. The iwi and co-management partner Greater Wellington have drafted a management plan jointly to support the ecology of the area. All future planning and management actions for these lakes must recognise the co-management agreements and tino rangatiratanga of Taranaki Whānui over these lakes.

Our committee recognises the Vision and Outcomes of the Parangārahu Lakes Area Co-Management Plan that includes:

Moemoeā – vision
Kōhangapiripiri – Kōhangaterā – Kohanga ora: Nests nurturing life and wellbeing.

The outcomes – which are the Indicators of life, health and wellbeing are:

- *Tuna Heke* – restoration of the eel and native fishery of the lakes as a self-replenishing mahinga kai for Taranaki Whānui

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- *Manu Korihi* – flourishing forested landscape and healthy wetland-lake ecosystem sustains multitudes of birds and indigenous species and a revitalisation of Taranaki Whānui cultural practice
- *Tangata Kaitiaki* - managers, visitors and Taranaki Whānui are active kaitiaki protecting the catchments as taonga, which contributes to personal, community and tribal wellbeing.

Main issues in this catchment

The Parangārehu Lakes are generally considered to be in good, if not excellent, condition but there are emerging pressures causing concern. Te Māhere Wai raises a number of issues about the Parangārehu Lakes catchments that Greater Wellington must also consider and address.

The relatively recent detection of **invasive exotic plants in both lakes** threatens to upset the current macrophyte (aquatic plant) assemblage, which includes a range of unique and rare species. Recent incursions of the aquatic weed egeria (*Egeria densa*) in the upper Lake Kōhangaterā catchment is of particular concern. If not managed, there is a very real risk that egeria could out-compete and smother native macrophytes.

Both lakes have relatively **high nutrient levels**, which if not controlled could result in the lake experiencing an increase in phytoplankton blooms, or in a shift from a macrophyte to a phytoplankton-dominated system.

Excess **sediment** directly affects the health of the streams and is a potential source of nutrients. Suspended sediment can also reduce lake clarity, favouring some aquatic plants over others, potentially upsetting the current balance. Clearance of steep land for agricultural use in the lakes' catchments has resulted in increasing sedimentation in the lakes. Direct **livestock access to streams** hampers the growth of riparian vegetation and further weakens the stability of stream-banks. A lack of livestock exclusion and stream-bank vegetation in these catchments has left **stream bank margins prone to erosion** during periods of high rainfall.

Concern has been raised about the current level of **public access**. The Parangārehu Lakes need to be protected from development, pollution and should be accessed in a biosecurity and environmentally conscious manner by the public.

Actions likely to achieve shifts towards wai ora in a generation include good environmental practices addressing:

- Stock exclusion for wetlands (required in national regulation).
- Stock exclusion for Gollan's Stream and 1m wide tributaries (required in national regulation on low-slope land), which will also address stock exclusion for low-lying wetlands adjacent to streams.
- Any seepage wetlands in catchment assessed through catchment and farm environment planning.
- Any erosion
- risks with a focus on stream-bank sources assessed through catchment and farm environment planning, which will also reduce phosphorous sources.

Also of concern is that the coastal road may be acting as a barrier to fish passage to the Lakes.

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Journey from current state to wai ora

Sub- catchment areas	Ecological health: Macroinvertebrates – Current (C F)	First steps (S G)	Longer term	Ecological health: Periphyton – Current (C F)	First steps (S G)	Longer term	Fish – Current (C F)	First steps (S G)	Longer term	Human health: *E. coli* – Current (C F)	First steps (S G)	Longer term
Parangārehu catchment streams	C ↓	C B		C ↓	C B		A	A A		E	E C	

Sub- catchment areas	Ecological toxicity: Copper – Current (C F)	First steps (S G)	Longer term	Zinc – Current (C F)	First steps (S G)	Longer term	Nitrate – Current (C F)	First steps (S G)	Longer term	Ammonia – Current (C F)	First steps (S G)	Longer term
Parangārehu catchment streams	A	A A		A	A A		A	A A		A	A A	

Sub- catchment areas	Sediment: Clarity – Current (C F)	First steps (S G)	Longer term	Deposited – Current (C F)	First steps (S G)	Longer term	Phosphorus – Current (C F)	First steps (S G)	Longer term	Dissolved oxygen – Current (C F)	First steps (S G)	Longer term
Parangārehu catchment streams	D ↓	D C		D	D C		D	D C		A	A A	

Sub- catchment areas	Ecological health: Submerged plants (natives) – Current (C F)	First steps (S G)	Longer term	Submerged plants (invasive) – Current (C F)	First steps (S G)	Longer term	Phytoplankton – Current (C F)	First steps (S G)	Longer term	Human health: *E. coli* – Current (C F)	First steps (S G)	Longer term
Lake Kōhangatera	B	B A		B	B B		A	A A		No data	B A	
Lake Kōhangapiripiri	B	B A		C	C B		A	A A		No data	B A	

Sub- catchment areas	Human health: Cyanobacteria – Current (C F)	First steps (S G)	Longer term	Ecological toxicity: Ammonia – Current (C F)	First steps (S G)	Longer term	Nutrients: Nitrogen – Current (C F)	First steps (S G)	Longer term	Phosphorus – Current (C F)	First steps (S G)	Longer term
Lake Kōhangatera	A	A A		A	A A		B	B B		C	C B	
Lake Kōhangapiripiri	A	A A		A	A A		C	C B		C	C B	

Sub- catchment areas	Dissolved oxygen Lake bottom – Current (C F)	First steps (S G)	Longer term
Lake Kōhangatera	No data	A	
Lake Kōhangapiripiri	No data	A	

90

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91

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Appendices

Appendix 1: Committee establishment and membership

Whaitua Te Whanganui-a-Tara is the third of five whaitua processes Greater Wellington is undertaking as part of its requirement to give effect to the National Policy Statement for Freshwater Management 2020.

Greater Wellington saw the establishment of whaitua committees as an opportunity to do things differently through a devolved, community-led planning process. Greater Wellington aims to ensure that improvements in water quality are driven by local leadership, knowledge and priorities.

Whaitua Te Whanganui-a-Tara decision making is informed by many voices: national legislation that directs regional and district plans; the voices of the many and diverse local communities, whānau, hapū and individuals who provided their views; scientists from all disciplines; and those with cultural or local knowledge. It also considers those who do not have a voice or struggle to be heard, including younger and future generations. We have sought to represent all these voices.

The founding members of the Whaitua Committee were Roger Blakeley and Paul Swain (Greater Wellington), Morrie Love and Kara Puketapu-Dentice (Port Nicholson Block Settlement Trust/Taranaki Whānui ki Te Upoko o Te Ika), Hikitia Ropata and Naomi Solomon (Ngāti Toa Rangatira), Tui Lewis (Hutt City Council), Wayne Guppy (Upper Hutt City Council), Peter Gilberd (Wellington City Council), and Anya Pollock, Gabriel Tupou, Jonny Osborne, Louise Askin, Pat van Berkel, Peter Matcham, Quentin Duthie and Zoe Ogilvie (community representatives).

The first meeting was held on Matiu/Somes Island in February 2019 and was hosted by Taranaki Whānui. A key outcome of the day was a commitment to a bicultural approach to the way we would operate and make decisions. We were all encouraged to not just follow a 'bicultural process', but to think from the start that the outcome would be different from any previous similar processes.

In early meetings we decided we would benefit from a joint chairing arrangement, with one of the chairs being mana whenua and the other a member of the community who was not mana whenua. Kara Puketapu-Dentice and Louise Askin were confirmed as co-chairs at our third meeting.

The committee's make-up changed during its tenure:

- Morrie Love left and was replaced by Sam Kahui; Paul Swain left and was replaced by Councillor Ros Connelly; and Peter Gilberd left and was replaced by Councillor Sean Rush.
- Quentin Duthie resigned in February 2021 after making an outstanding contribution to the committee during its first two years.
- Kara Puketapu-Dentice stepped down as co-chair in December 2020 and continued as a committee member. Sam Kahui was appointed as his replacement.

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Appendix 2: Our community's freshwater values in Whaitua Te Whanganui-a-Tara

This Appendix takes a close look at the things we value in the waterbodies of our whaitua (our 'freshwater values'). These values all apply to some extent to all the waterbodies:

- Freshwater ecosystem health
- Mahinga kai
- Threatened species
- Natural form and character
- Māori customary use and wai tapu
- Drinking-water supply
- Human contact (primary)
- Community connection
- Animal drinking water
- Commercial, industrial use and the production of food and beverages
- Transport and Tauranga waka
- Fishing.

For a detailed description of specific mana whenua values in this whaitua, see *Te Mahere Wai*, the companion document produced by Te Kāhui Taiao (the mana whenua membership of the Whaitua Committee).

Freshwater ecosystem health

This refers to the extent to which a catchment supports an ecosystem appropriate to the type of water body (e.g., river, lake, wetland or aquifer). There are five biophysical components that contribute to freshwater ecosystem health and all of them need to be managed. They are:

- Water quality – the physical and chemical measures of the water (such as temperature, dissolved oxygen, pH, suspended sediment, nutrients and toxicants)
- Water quantity – the extent and variability in the level or flow of water
- Habitat – the physical form, structure and extent of the water body, its bed, banks and margins; its riparian vegetation; and its connections to the floodplain and to groundwater
- Aquatic life – the abundance and diversity of biota, including microbes, invertebrates, plants, fish and birds
- Ecological processes – the interactions among biota and their physical and chemical environment (such as primary production, decomposition, nutrient cycling and trophic connectivity).

We must also consider ways to fulfil the mauri or āhua of our waterbodies. *Te Mahere Wai* has more on this, including information on a Te Oranga Wai assessment framework (currently in development) for determining kei te ora te mauri (the mauri of the place is intact). The framework offers wider tools for assessing the NPS-FM's first priority of Te Mana o te Wai, and the provision of other mana whenua values. The western science measures of the national objectives frameworks are a part of (but insufficient on their own) for fully understanding the mauri, mana and āhua of waterbodies.

Ecosystem health as key indicator of the health of the waterbody – to be prioritised under Te Mana o te Wai applies to all freshwater bodies and coastal receiving environments of all sizes and types. Where a waterbody is significantly degraded or modified the journey of improvement may be long, but we must work to achieve the first priority (providing for ecosystem health) with kei te

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ora te mauri as the destination. Providing for the health of the awa will provide for the health needs of people and other human uses and values.
Mahinga kai
Mahinga kai generally refers to freshwater species that have traditionally been used as food, tools or other resources. It also refers to the places those species are found and to the act of catching or harvesting them. Mahinga kai provides food for the people of the rohe and these sites give an indication of the overall health of the water. For this value, kai would be safe to harvest and eat. Transfer of knowledge is able to occur in the preparation, storage and cooking of kai. In catchments or sub-catchments that are used for providing mahinga kai, the desired species are plentiful enough for long-term harvest and the range of desired species is present across all life stages. To achieve kei te ora te mauri (the mauri of the place is intact) in catchments that are valued for providing mahinga kai, customary resources are available for use, customary practices are able to be exercised to the extent desired, and tikanga and preferred methods are able to be practised. See *Te Mahere Wai* for direction on mahinga kai in this whaitua, and the in-development Te Oranga Wai assessment framework for information on the methods and basis for attribute state targets in regional planning documents.
Threatened species
This refers to the extent to which a catchment supports a population of threatened species has the critical habitats and conditions necessary to support the presence, abundance, survival and recovery of the threatened species. All the components of ecosystem health must be managed, as well as (if appropriate) the specialised habitat or conditions needed for only part of the life-cycle of the threatened species. Unfortunately, threatened species' habitats and passage requirements have been degraded to a greater or lesser extent in all waterbodies in the whaitua, especially around the coastal margins. In areas of urban development, the requirements of threatened species that live in or rely on freshwater habitats or coastal receiving environments have also been diminished. We must meet their requirements if we're to achieve the first priority of Te Mana o te Wai in the NPS-FM.
Natural form and character
This refers to the catchment having particular natural qualities that people value. Natural qualities may include exceptional, natural or iconic aesthetic features. Matters contributing to the natural form and character of a waterbody are its biological, visual and physical characteristics that are valued by the community, including: • Its biophysical, ecological, geological, geomorphological and morphological aspects • The natural movement of water and sediment, including hydrological and fluvial processes • The natural location of a water body and course of a river • The relative dominance of indigenous flora and fauna and the presence of culturally significant species • The colour of the water • The clarity of the water. See *Te Mahere Wai* for information on mauri, mana and āhua as related values to natural form and character.

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If we're to achieve the first priority of Te Mana o te Wai in the NPS-FM, it's important that we restore natural flow paths, habitat and shading, natural variations in flows and natural features (such as runs and riffles). This provides for the intrinsic values of the life-supporting capacity and integrity of the uniqueness the waterbody has. This has the additional benefit of allowing the waterways to be more easily viewed and accessed, and provides people with visual amenity and a sense of place and connection. This value applies to all freshwater bodies and coastal receiving environments of all sizes and types.

Māori customary use and wai tapu
Māori customary use refers to the interaction of Māori with fresh and coastal water for cultural purposes. This includes the cultural and spiritual relationships with water expressed through Māori practices, recreation and the harvest of natural materials. Wai tapu represent the places in a catchment where rituals and ceremonies are performed, or where there is special significance to tangata whenua. Rituals and ceremonies include, but are not limited to, tohi (baptism), karakia (prayer), waerea (protective incantation), whakatapu (placing of rāhui), whakanoa (removal of rāhui) and tuku iho (gifting of knowledge and resources to future generations). In providing for this value, the wai tapu are free from human and animal waste, contaminants and excess sediment, with valued features and unique properties of the wai protected. Other matters that may be important are that there is no artificial mixing of the wai tapu and identified taonga in the wai are protected. For more information, see schedules B and C of the Natural Resources Plan and further detail in *Te Mahere Wai*.
Drinking-water supply
This refers to the catchment meeting people's drinking-water needs. Water quality and quantity is sufficient for water to be taken and used for drinking-water supply. Matters affecting the suitability of water for drinking include: • Physical, chemical and microbiological contamination (e.g., bacteria and cyanotoxins, viruses, protozoa and other pathogens) • Any other contaminants identified in drinking-water standards issued under the Health Act or any other legislation • The effects of contamination on drinking-water treatment processes and the safety of drinking water and its aesthetic value (i.e., appearance, taste and smell). The Te Awa Kairangi/Hutt River, Wainuiomata and Ōrongorongo River catchments are the major sources of water for the municipal drinking-water network, which draws from surface water takes and groundwater supply from the Hutt aquifer. The municipal network supplies drinking water for residential, public and commercial uses to the cities of Upper Hutt, Lower Hutt, Wellington and Porirua. All catchments also have small-scale water takes for domestic use and animal drinking water. In a small number of locations, there are surface water takes or bores for small-scale commercial uses through consents for taking water, because even these can be the source of significant risks to mauri and ecosystem health. Drinking-water supply should not compromise the ecosystem health needs of the waterbody, as well as it being protected from contamination and overuse. We need everyone to be self-responsible for the water they use and for the impacts of extracting water that would otherwise stay in the river ecosystem. In accordance with the kawa, we should all minimise and be as efficient as possible with our water use.

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Human contact (primary)
This refers to the extent to which a catchment supports people being able to connect with the water through a range of activities (such as swimming, waka, boating, fishing, mahinga kai and water skiing) in a range of different flows or levels. Matters affecting the ability to have safe and suitable human contact with waterways include pathogens, water clarity, deposited sediment, plant growth (from macrophytes to periphyton to phytoplankton), cyanobacteria, other toxicants and litter. Through our public engagement, we've found that the water quality required for safe and direct human contact applies to all fresh and coastal waterbodies of all types and sizes. We've heard that people's long-term goal for urban streams is that they're safe places for children to play, and that this is important to restoring their mana and people's connection to them. It shows that human contact is necessary for much more than recreation, mahinga kai, customary Māori use, mental health or community connection.
Community connection
The 'community connection' value refers to the sense of connection that people feel to the waterways where they live and with which they interact. Through our public engagement with the wider community, we've received a strong message that the unique nature of our rivers, streams, swimming holes, wetlands and coastal waters, together with their environment, gives people a significant sense of place and contributes to their identities. We've learned that community connections with freshwater deliver value to people, whether through their participating in its care or through mental health benefits, spiritual connections, a sense of identity, a sense of place, stories and culture, or physical health. This value is clearly significant. It signals that we need to consider, respect and enhance opportunities for community connection alongside our work in maintaining and improving waterbody health. It results directly and incidentally from an extensive range of activities that include fishing, diving, tramping, dog walking, swimming, sunbathing, walking, running and cycling by streams, playing, community events and gatherings, and enjoying the sounds of water and the sight of fish. Community members and groups, and businesses of all types, in the whaitua have essential roles in leading and undertaking the restoration effort we require to improve the health of our freshwater at the scale and pace required. We need Greater Wellington and city councils to: • Partner with them in visioning, planning and delivering change • Move beyond conventional consultative approaches • Encourage a long-term commitment • Boost their enthusiasm, hope and sense of connection to the whaitua by ensuring they understand their roles and the value of their contributions • Develop clear resourcing strategies with mana whenua and council agencies. The high population density in Te Whanganui-a-Tara enables important community connections to waterbodies of all types and sizes. See *Te Mahere Wai* for detailed descriptions of mana whenua and mātauranga relationships with awa and wai.
Animal drinking water
This refers to the catchment meeting the needs of farmed animals. Water quality and quantity meets the needs of farmed animals, including whether it is palatable and safe.

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All catchments in the Te Whanganui-a-Tara whaitua have some pastoral land use and farmed animals, and many smaller 'lifestyle' properties where people hold livestock that require water to drink.
Commercial, industrial use and the production of food and beverages
This refers to the catchment providing economic opportunities for people, businesses and industries. Water quality and quantity can provide for commercial and industrial activities. Irrigation and cultivation are not major uses in this whaitua, but do exist at a limited scale. The production of food and beverages are significant industries in this whaitua and most people use water from the municipal supply network. Water quality and quantity should also be suitable for irrigation needs, including supporting the cultivation of food crops, the production of food from farmed animals, non-food crops (such as fibre and timber), pasture, sports fields and recreational areas. In this whaitua, most economic use comes from commercial use of the municipal water supply network, but water is also used from private surface and groundwater takes to support a range of livelihoods. We now need to develop a strategy to ensure enough water is available for commercial and industrial use without compromising its health, aquatic ecosystems and human health. It's important to also remember that commercial freshwater values are intimately linked to people's mental and physical health through employment and prosperity.
Transport and Tauranga waka
This refers to the catchment being navigable for identified means of transport. Transport and Tauranga waka generally refers to places to launch waka and watercraft, and appropriate places for waka to land (Tauranga waka). While this whaitua has few waterway reaches that are suitable for navigating waka or watercraft, the tubing and kayaking for recreation does occur in Te Awa Kairangi and the lower reaches can be suitable for larger craft. See *Te Mahere Wai* for direction on the mana whenua values for navigation and Tauranga waka.
Fishing
This refers to how the catchment supports fisheries of species allowed to be caught and eaten. For catchments valued for fishing, the numbers of fish are sufficient and suitable for human consumption. In some areas, fish abundance and diversity provide a range in species and size of fish, and algal growth, water clarity and safety are satisfactory for fishers. Attributes – a measurable characteristic of freshwater (including physical, chemical and biological properties) that supports particular values – will need to be specific to fish species (such as tuna, lamprey, whitebait, salmon or trout). The PNRP identifies some rivers in the whaitua as significant for sport fisheries. The fish in these areas are healthy and should provide for recreational use for as long as there is demand, and as long as there are no negative effects on indigenous species and the practice of mahinga kai. The PNRP identifies some rivers in the whaitua as significant for sport fisheries. We also recognise the lower Te Awa Kairangi and coastal receiving environment as important places for fishing native species (such as kahawai and mullet). See *Te Mahere Wai* for direction on the mana whenua values for mahinga kai.

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Appendix 3: Te reo Māori glossary

Te reo Māori Term	English Terminology
Āhua	Natural character
Hauora	Health and wellbeing
Kawa	Protocol, ritual chants, system
Mahi kai/mahinga kai	Food gathering places
Mauri	Life force
Tauranga waka	Canoe landing places, moorings
Wai ora	Water which gives life

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Appendix 4: Technical glossary

Item	Description
Allocation	The process of distributing water supplies to users to meet the various requirements of a community.
Aquifer	A geological layer in which groundwater is stored. The amount of water stored depends on the geological material (e.g., gravels are likely to store more water than dense rock). Aquifers are recharged by rainfall and surface water (through streams and rivers). Groundwater is taken from aquifers for many uses, including drinking water.
Attribute states	Are a measurable characteristic of freshwater (including physical, chemical and biological properties) that supports particular values. Within the NPS-FM, various states have been determined for different attributes (i.e., nitrate toxicity), which range from A to E. The NPS-FM requires Greater Wellington to set target attribute states.
Bulk water consent	A resource consent (or consents) granted by Greater Wellington for the taking of large amounts of water for municipal use.
Citizen science	A scientific endeavour in which investigations or monitoring are carried out by community members who are not qualified scientists.
Coastal receiving environments	The coastal environment which freshwater runs into.
Constructed overflow (also known as wastewater overflow)	A site where underground flows of wastewater can overflow into the stormwater network when pipe capacity is exceeded, typically during wet weather (driven from inflow and infiltration). These are designed fail-safes to ensure that sewage does not backflow into residential properties, but instead results in discharges to the environment.
Contaminant	Any physical, chemical, biological or radiological substance that has an adverse effect on air, water, soil or living organisms (such as heavy metals, pathogens and nutrients).
Critical source areas	Small, low-lying rural or urban areas where runoff accumulates contaminants in high concentrations, and/or hotspots of activity or contaminant generation (such as stock camps and cattle races, construction sites or industrial operations).
Cross-connection	Where a wastewater pipeline (often from a residential household or development) has been connected to a stormwater pipeline, resulting in a continuous direct discharge of sewage to the environment.
Cyanobacteria (also known as blue-green algae)	An ancient group of microscopic organisms found naturally in all water types. They produce a range of natural compounds, of which some can be toxic to people, dogs and livestock.
Diffuse discharge	A discharge that cannot be traced back to a single source/point (such as a stormwater pipe or farm runoff).
Discharge	Any spill, emission, leaking, pumping, injection, deposit, dispersal, leaching, migration, disposal, discharge or release of a contaminant, or water or soil containing a contaminant.
Drinking water	Raw water that has been abstracted from rivers and aquifers and treated to an acceptable 'drinking water' quality, then pumped/distributed around cities to be used for commercial, residential and industrial activities.

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Drinking-water network	The network of pipelines, reservoirs, dams, treatment plants and pump stations that moves raw and treated drinking water around cities.
Exfiltration	All leakage of wastewater into the environment through broken pipes (either public mains or private laterals connected to public mains).
Flushing flows	High river flows, usually associated with rainfall, which flush out the river system and can scour out macro-algae. They can be artificially induced as a mitigation measure in rivers where flows have been lowered by dams or large abstractions.
Freshwater Farm Plans	These plans are a central government regulatory requirement for farms over 20ha in area.
Global stormwater network consent	The resource consent granted to Wellington Water to operate the stormwater network in the whaitua.
Grade 1–5	A generic grading assessment used for pipelines. Grade 1 signals very good condition, grade 2 good condition, grade 3 average condition (some potential for leaks) and grades 4 and 5 poor/very poor condition and in need of repair or urgent works.
Green infrastructure	Engineering structures built as part of water-sensitive urban design (WSUD), including constructed wetlands, rain gardens, permeable paving, swales and green roofs.
Greywater	Untreated liquid wastewater from domestic sources (such as household sinks, basins, baths, showers and similar appliances). This term does not include toilet, faecal matter or urinal wastes (wastewater).
Hydraulic neutrality	The mean annual runoff and peak flows from a wide range of rainfall event sizes from a completed development is the same as it was prior to development, and should not result in increased stress (hydrologically or ecologically) on the stormwater network or the receiving freshwater environment.
Inflow and infiltration	The connection of stormwater (and groundwater) to the wastewater network, which can lead to wastewater overflows. Inflow is from surface runoff (i.e., down pipes connected to gully traps) and infiltration is from groundwater inflow (through old or damaged pipes).
Infrastructure Leakage Index (ILI)	A technical measure of the drinking water network's performance for leaks. It allows for comparisons to other cities around the world.
Laterals	Small pipes connecting a property to the public three waters network (stormwater, wastewater and drinking water). They are often privately owned with little knowledge about their state/condition.
Main	Primary public network pipelines that many laterals drain to (stormwater or wastewater) or source water from (drinking water).
Mean annual low flow (MALF)	The naturalised mean (average) annual low flow with a duration of seven days.
Minimum flow	The flow or water level at which abstraction from a river or groundwater is restricted by Greater Wellington (or required to cease). This may be below the MALF.
Natural processes	Dynamic natural, physical and ecological relationships and events that are characteristically natural in their occurrence and effects. They act to shape the

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	natural environment and its landforms and features (such as beaches, dunes, wetlands and rivers). They include processes of wave formation, breaking and dissipation; swash run-up; nearshore currents; sediment transport; erosion and deposition; flooding; river meandering; aggradation; and mass movement.
Ngā Taonga Nui a Kiwa	Schedule B of the Proposed Natural Resources Plan. Large freshwater and coastal entities from which mana whenua derive cultural and spiritual identity, their status as mana whenua and the associated responsibilities that come with that including those of kaitiaki. These places are the larger rivers and harbours that have a long history of multiple and complex resource use associated with large populations. Ngā Taonga Nui a Kiwa emphasises the importance of mana whenua relationships with rivers, lakes, harbours and estuaries.
NPS-FM	National Policy Statement for Freshwater Management 2020.
Offset	A measurable positive outcome, resulting from an action designed to compensate for the significant residual adverse effects on the environment arising from an activity after avoidance, remediation and mitigation measures have been taken.
Point source discharge	The discharge of water or contaminants at a specific identifiable location (such as a factory) or from a fixed facility (such as a pipe).
Potable water	Water that has been treated to a high standard for drinking. Often used interchangeably with 'drinking water'.
Public three waters network	Territorial authorities (local councils) own the three waters assets that move wastewater, stormwater and drinking water (the 'three waters') around cities. These assets are managed by Wellington Water. Private laterals connect to these public networks for either water supply or wastewater and stormwater discharge.
Relevant three waters agency	This is currently Wellington Water. However, when the Three Waters Reform Programme is completed, the management of three waters infrastructure may change to any 'relevant three waters agency'.
Restoration	The rehabilitation of sites, habitats or ecosystems to support indigenous flora and fauna, ecosystem functions and natural processes that would naturally occur in the ecosystem and locality.
Riparian planting	The planting of areas beside rivers and streams to reduce contaminants getting into water, stabilise banks, shade the water and provide natural inputs (leaf and wood fall) to contribute food sources and habitat.
Stormwater	Rainfall runoff that has been intercepted, channelled, diverted, intensified or accelerated by the human modification of a land surface, or runoff from the external surface of any structure (e.g., a roof), as a result of precipitation and includes any contaminants contained in the runoff.
Stormwater network	A network of devices designed to capture, detain, treat, transport and discharge stormwater that includes, but is not limited to, kerbs, intake structures, pipes, soak pits, sumps, swales, and constructed ponds and wetlands.
Stygofauna	Animals that live in groundwater systems or aquifers.
Territorial authorities	City and district councils.
Three waters	Stormwater, wastewater and drinking water.

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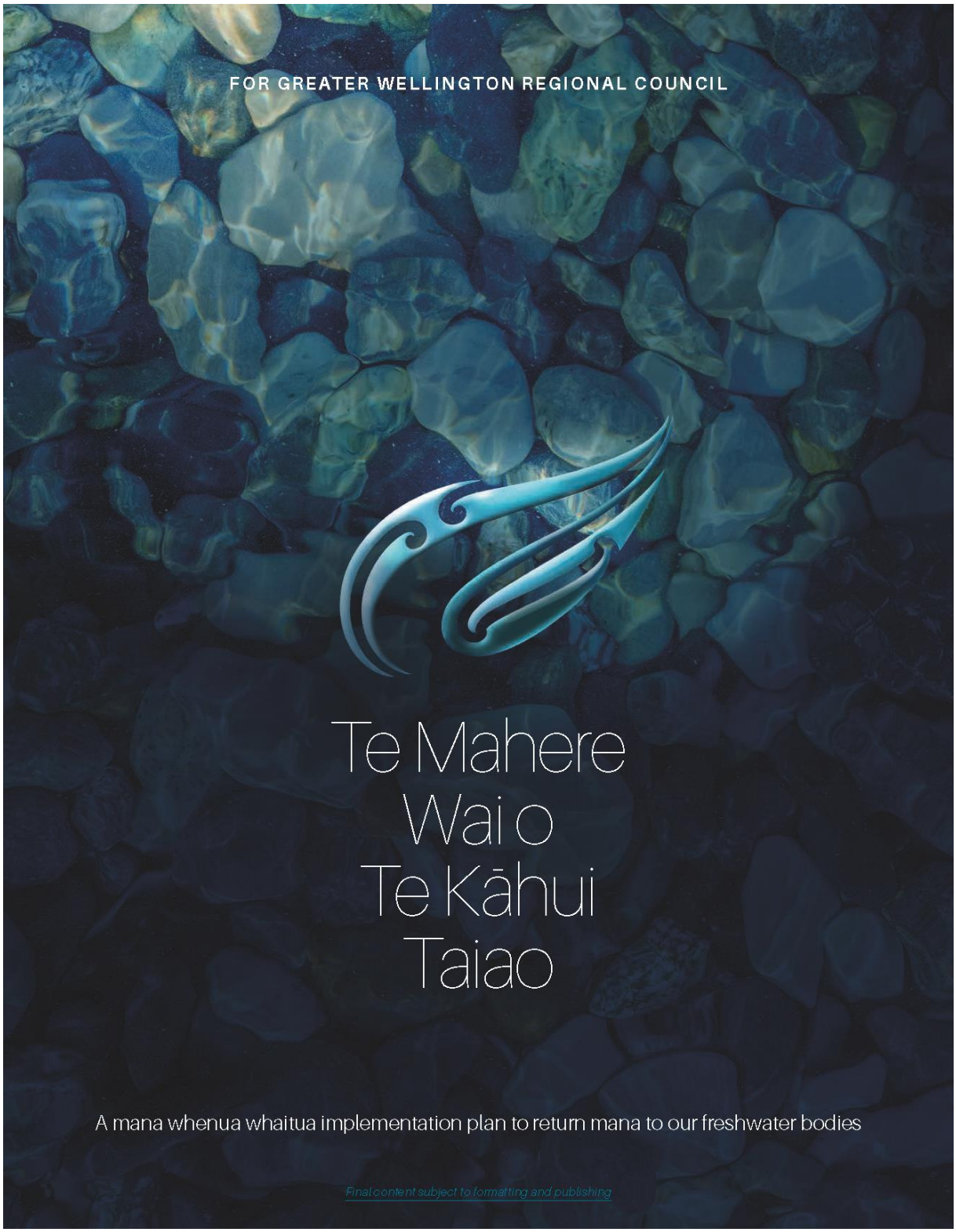
Toxic algae	The common name for toxin-producing cyanobacteria found in rivers.
Tributary	A river or stream that connects to a lake or a larger river or stream.
Unconstructed overflow	A site where wastewater/stormwater discharges to the surface at a location that has not been designed for it, primarily due to insufficient network capacity during wet weather events. It is typically found at manholes.
Urban stream syndrome	The term that describes the consistently observed ecological degradation of streams draining urban land.
Wastewater	Liquid waste (and liquids containing waste solids) from residential, industrial and commercial premises. It includes, but is not limited to, human effluent, greywater and trade wastes, and should exclude stormwater.
Wastewater network	A community-reticulated wastewater system that includes, but is not limited to, a network of devices, pipes and pump stations, designed to accept and transport wastewater from properties to a treatment plant and the discharge of treated wastewater from a wastewater treatment plant.
Wastewater overflows	A state when wastewater discharges to the environment through the stormwater system through a constructed or unconstructed overflow.
Water-sensitive urban design (WSUD)	A stormwater engineering principle that seeks to maintain and enhance the natural water cycle for the built environment, resulting in better water quality, flood mitigation and enhanced natural character.
Wellington Water	The three waters agency that currently manages stormwater, wastewater and drinking water in Wellington, Upper Hutt, Lower Hutt and Porirua.
Whaitua	Te reo Māori for catchment or space. The Wellington Region is divided into five whaitua, each of which will have a Whaitua Committee assigned to develop a programme to improve water quality.
WIP	Whaitua Implementation Programme.
Workforce Development Council (WDC)	Organisations recently created to provide industries with greater leadership across vocational education and training. Each WDC represents a specific sector.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Te Mahere Wai o Te Kāhui Taiao
A mana whenua whaitua implementation plan to return mana to our freshwater bodies
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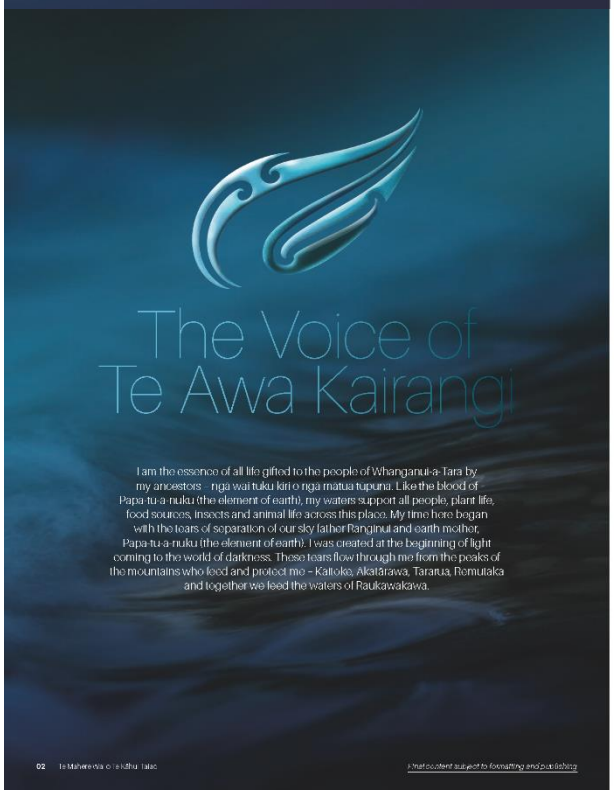

FOR GREATER WELLINGTON REGIONAL COUNCIL

TE RŪNANGA O TOA RANGATIRA

TARANAKI WHĀNUI
KI TE UPOKO O TE IKA

Te Mahere Wai o Te Kāhui Taiao

A mana whenua whaitua implementation plan to return mana to our freshwater bodies

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I once meandered down these waters alongside my kaharu, the Hutia, the Tāi and the Kererū, nō mua tho - since forever. When the first people began to arrive, we began to live together. I became their ancestor – a tupua awa and they became another kaitiaki to protect me. We respected each other and even me we would share a whakapapa (genealogy), sacred rituals and we lived in harmony with each other. I could breathe and I was well fed.

Sometimes I would look to the night sky and would see my old friend Tohua. When Tohua arrived, I knew it was a time for people to be cooked by my flowing waters. At special times, my waters were so pure that tohunga would bathe their new pēpi in me. Everyday, the people would drink from me and with each generation they learnt the contours of my body - finding places to source and store food. Tamariki (child/children) would chase the eel inside my belly and float on my currents towards Raukawakawa. We would laugh together and enjoy each other's company. When Tokuriua arrived in the night sky, I knew Tawhirimatea would soon reveal himself. His rain would fill me, his fierce winds would push me, his thunder would shake rocks inside me – reminding us of his power and presence. My waters would rise and spread, and I could feed the wetlands, the harakeke and the ngahere giving way to new life.

I am very old now and many more people have arrived. My noble kaitiaki, and friend the Hutia has left this earthly world, never to be seen again. Ngahere that once surrounded me have been cleared to make way for a new way of living. I am now surrounded by houses for families, tall buildings erected for workers and highways for transport. Machines have invented new curves and distorted my edges. Structures stand where my waters used to flow easily. Pipes have been inserted into my belly. All these conspire against me and have filled me with impurities that will always remain foreign to me. Many more people are yet to arrive.

I seek ratupe now and embrace the Taiao who once shouldered me like a cloak. I feel great disappointment for my ancestors, Tangaroa, who waits to receive me, will rise in an act of defiance. Tawhirimatea stands upright, beside me ready to call with his rākau in an act of revolution. My waters will continue to change in colour and odour. The foreign residues forming and flowing in my belly will jumble their way down these valleys and gullies filling pools of water where innocent feet will play. My lament is a call to arms, to the guardians who will protect me.

Inspired by the many people who volunteer their time to return mana to freshwater rivers, streams and wetlands of Whanganui-a-tara.

Written by Hikitia Ropata, translated by Piripi Walker

Dedicated to Te Kāhui Taiao Project Team

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Te Mahere Wai o Te Kāhui Taiao 03

Te Karanga a Te Awa Kairangi

Tēnei au te tangi ake nei, te wairua o ngā mea katoa i tukua ki ngā tangata o Te Whanganui-a-Tara e oku tupuna – nga wai tuku kiri o nga matua tupuna. He rite tonu au ki te toto o Papa-tu-a-nuku, ma oku wai hei whangote i nga tgata, i nga tupu, i ngā puna kai, i ngā pepeke, i nga kararehe, i ngā manu, me nga ika katoa o tēnei takiwā. I tīmata mai au i konei i ngā roimata i maringi i te wehenga o Ranginui rāua ko Papa-tu-a-nuku, ko raua hoki nga tupuna o te tangata. I takea mai ao i te timatanga mai o te ao mārama, hei mutunga atu mō ngā wā o te Pō. Ko ēnei roimata e rere nei i roto i ahau, he roimata māturuturu mai i ngā tihi maunga whāngai i ahau, i ngā maunga tiaki i ahau - ko Kaitoke tērā, ko Akatārawa tērā, ko Tararua, ko Remutaka, ko mātou ki te tuku wai ki te moana o Raukawakawa.

I pokapoka haere au, i kawe haere i ngā wai nei i te taha o aku kaitiaki, o te Huia, o te Tūī, o te Kererū, nō mua iho, nō mua iho. No te taenga mai o ngā tangata tuatahi, ka tīmata te mātou noho ngātahi. Ka huri au hei tupuna mō te tangata - he awa tupua, ā, ko rātou ka noho hei kaitiaki i ahau. I mihi nui anō mātou ki a mātou anō, nāwai ā, ka takoto ake he whakapapa, he kawa, ngā āhuatanga o te tapu, o te noa, ā, ka pai te noho tahi. I hā taku manawa, arara, he wai ora!

I tētahi wā kua titiro ki runga kua kite au i taku hoa i a Rehua. I te taenga mai o Rehua kua mōhio te tangata, kua tae ki ngā marama o te aroaromahana, kua kaukau i roto i aku wai mātao. I ngā wā o rite ana, ka tohia ngā pēpi e ngā tohunga i roto i ahau, na te para kore o ōku wai. I nga ra katoa ka haere mai te iwi ki te inu i te wai, ki te koutuutu taha, ā, i te aranga ake o tēnā reanga, o tēnā reanga ka ako i ngā ānau o taku tinana - kua mātau hoki ki ngā wāhi pai hei rapu kai, hei whakawhata kai. Ka whāia e ngā tamariki ngā tuna i roto i taku puku, ka mānu rātou i te ia o te wai, he heke whaka-te moana, ki Raukawakawa. I reira kua kata tahi mātou, kua pārekareka i te noho tahi. Te kitenga atu o Takurua i te pō, kua mōhio au, tēnei a Tāwhirimatea te whakatata mai nei. Ka pūrena katoa au i tana ua, ka rurea ahau e ana hau, ka rūrūtia e ia ngā toka i roto i ahau i te kaha o tōna whaitiri - e mōhio ai tātou ki tōna kaha, ki tōna mana. I reira ka piki ōku wai, ka torotoro, ka whāinuinutia ngā repo, ngā harakeke, kua piki anō te ora o te ngahere.

Kua taikuiatia ahau inēianei, kua nohoia hoki e te tini o te tangata. Kua mate ā-moa taku hoa, taku kaitiaki, te Huia i nuku-taiao, kua kore ano e kitea mai. Ko nga ngahere i noho hei korowai mōku, kua waerea katoatia, mō te āhuatanga noho o te ao hou. Kua karapotingia ahau e ngā whare mō ngā whānau, e ngā whare i ketike mō ngā kaimahi me ngā huarahi tino nui mō ngā waka whenua o nāianei. Kua haea mai he tiwhana hou, kua hē te takoto o ōku taupā. E tū ana ētehi whare, ētehi hanganga nui i ngā wāhi i rere noa ai ōku wai i mua. Kua whakaurua he ngongo ki taku kōpū. Ēnei mea katoa nei tāmi i ahau, hei whakaki i ahau ki ngā mea poke, ahakoa pea, ka kī a he poke i taku tinana. He tini tonu ngā tāngata e haere mai ana.

Kua rapu tautiaki au inaianei, ā, ka tauawhi tonu au i te taiao i whakakorowai i ahau i mua. Ka pa te pōuri nui mō aku tūpuna. Mō Tangaroa, e takoto nei hei tukunga nei mō ōku wai, meake ka ara ake ki te whakatuma i te tangata. Kua tū mai a Tāwhirimatea, kua korikori, kua haka, kua huripoki i te ao. Ka rerekē haere tonu ōku wai, te tae, te kakara, te piro tāne i. Ka nui haere ngā para i roto i taku kōpū, ka pipi ki ngā awaawa, ki ngā riu, ka turu ki ngā hōpua wai, te wai takaro o ngā tamariki. Ko tēnei karanga, he karanga kia whawhai, kei pēnei te mutunga atu, he karanga ki ngā kaitiaki whakaruruhau i ahau.

He mea tito tēnei mō te tini o te tangata e mahi nei mō te aroha kia whakahokia mai te mana ki ngā awa wai māori, ki ngā awa, ki ngā repo hoki o Whanganui-ā-tara

He mea tuhituhi na Hikitia Ropata

He mea whakamaori na Piripi Walker

He tohu aroha tēnei ki te Rōpū Mahi o Te Kāhui Taiao

Te Ara Tupua ANCIENT PATHWAY

Let me take you back to time immemorial well before man walked upon these islands – when the Te Kāhui Maunga (mountain clan) were hauled from the great depths of Te Moananui-a-Kiwa (the great ocean of Kiwa) to open the mouth of the great fish Māui.

Following the procreation of the mountain ranges of the central plateau, Ranginui summoned Te Kāhui Maunga to the head of the fish through Te Au Rona and Te Au Kukume, where they gathered on the summit of Pukeatua. Upon reaching Pukeatua, they were gifted the ritual incantations to summon from the depths of the freshwater lake two ancient phenomena. Reciting the ancient incantations, they instructed the two Tupua, Ngake and Whātaitai, to prise open the great mouth of the great fish of Māui.

Each responsible for their own freedom from the freshwater lake, both Tupua took different pathways to prising open the mouth of the great fish of Maui and their ultimate freedom. One Tupua commenced his journey on the eastern side of the lake, winding himself up and leaving behind a destructive pathway. He hurled himself towards the distant barriers, he bashed through escaping the freshwater lake to freedom, unto the great maiden ocean, Hine-moana. It was at this point the freshwater lake met the saltwater for the very first time. After the devastation, Ngake left behind the geographical features we see today.

The second Tupua, Whataitai, opted to take the western pathway, commencing from the throat of the great fish of Māui (Korokoro-o-te-Ika, later to be named Te Korokoro-a-Mana), arriving at Ngā Ūranga where he began to wind himself into a coil. Before he could ready himself for his escape, his companion had already broken through leaving a pathway of destruction and causing the water level to recede. In the ever shallowing waters, the second Tupua, still intent on escape was unable to generate enough speed and momentum and quickly he became stuck on a sandbar. Unable to move any further, he remained there for some time as the water washed over his back.

Aeons passed by where a great land mass uplifted him out of the water exposing his body to the open air elements bringing his life to a sudden end. In passing, his spirit took the formation of a spiritual bird, Te Keo, who to this day continues to pursue the pathway of enlightenment.

These two Tupua were both tasked with prising open the mouth of the great fish of Māui and, in doing so, opting to take alternative pathways. One created the eastern inner harbour pathway and, in doing so, left us with the geographical iconic formations of Te Awa Kairangi, the islands of Matiu, Makara, Mokopuna and Te Au a Tane.

The second created the western inner harbour pathway, commencing from the throat of the great fish of Maui, leaving behind the icons of the eastern harbour Horokiwi, Waihinahina, Parikarangaranga, Paroro-rangi, Tahataharoa and Ngā Ūranga.

These two Tupua are the original creators of our harbour and are intimately tied to the landforms, waterways, people and landscapes that surround and feed into Te Whanganui a Tara.

Kura Moeahu (August 2019)

(Te Kahui Maunga, Te Āti Awa, Nga Ruahine rangi, Ngati Mutunga Taranaki Tuturu, Ngati Tama, Ngati Ruanui, Ngati Toa)

Te Ara Tupua

E ngā iwi, e ngā reo, tēnā koutou katoa. Kia hoki ake tātou ki ngā rā o nehe, ki te orokohanga mai o ēnei motu, kāhore kau he tangata kia takahi i ōna takutai, ko te wā tērā o te hīnga mai o Te Kāhui Maunga i te rire o Te Moananui-a-Kiwa, hei huaki i te waha o Te Ika-a-Māui.

I muri i te aranga mai o ngā ika whenua o te puku o te ika, ka tonoa Te Kahui Maunga e Ranginui ki te upoko tonu o te ika, mā roto i Te Au Rona me Te Au Kukume, ā, ka huihui mai ki te tihi o Pukeatua. Te taenga ki Pukeatua, ka takohatia ētehi karakia tapu hei tono i ētehi tupua e rua, mai i te roto wai māori o reira. Te tononga mai o ngā karakia o nehe, ka tonoa ngā tupua tawhito, a Ngake rāua ko Whātaitai, kia huaki i te waha o te Ika-a-Māui.

I watea ia tupua ki te whai i tona ake ara ki te ao tūroa mai i te roto wai māori, arā, i rerekē anō te ara i kōwhiria e tētehi, e tētehi, ki te huaki i te waha o te Ika nui a Māui, kia puta atu ki te aotūroa. I haere tētehi o aua tupua mā te taha rawhiti o te roto, ka kowiri haere, ka haea e ia te whenua. Ka koropana whakawaho ia me te tuki atu i nga maioro, i nga pari me nga toka, kia puta rawa ia i te roto wai maori ki te ao o tatari ana i waho, ki Hine moana. Ko te tūtakitanga tuatahi tērā o te roto wai māori ki te wai tai. I muri i te tukinga, ka waiho mai e Ngake ngā tohu whenua e kitea ana e tātou i ēnei rā.

I whai te Tupua tuarua, ko Whataitai te ingoa, i te ara ki te hauauru, tīmata mai i te korokoro o te Ika a Maui, ara, i te Korokoro o te Ika, no muri mai ka tapa ko Te Korokoro a Mana, nawai a, ka tae ki Ngā Ūranga, ka pōkaikai katoa tana tinana. Engari, i mua atu i tana takatū kia rere ia ki waho, kua tukia kētia e tana hoa taua ara turaki toka, whakaheke hoki i te ritenga o te wai. I roto i ngā wai e whakamimiti haere ana i mua i ana karu, kāore i kaha te tupua tuarua, kua pōrori noa tana haere, ā, ka mau i te tāhuna. Kāhore i kaha ki te nuku whakamua, ā, ka noho i reira mō tētehi wā, me te mārearepa o ngā wai ki tana tuarā.

Ka taka te hia mano tau, kātahi ka whakaarangia ia ki runga rawa, me te noho mārakerake o tana tinana ki nga ahuatanga o te ao nui, ā, ka mate rawa ia i reira. No te hemonga, ka rere tana wairua hei manu ko Te Keo te ingoa, ā, mohoa noa nei, e whai tonu ana ia i te maramatanga tūturu o te hinengaro.

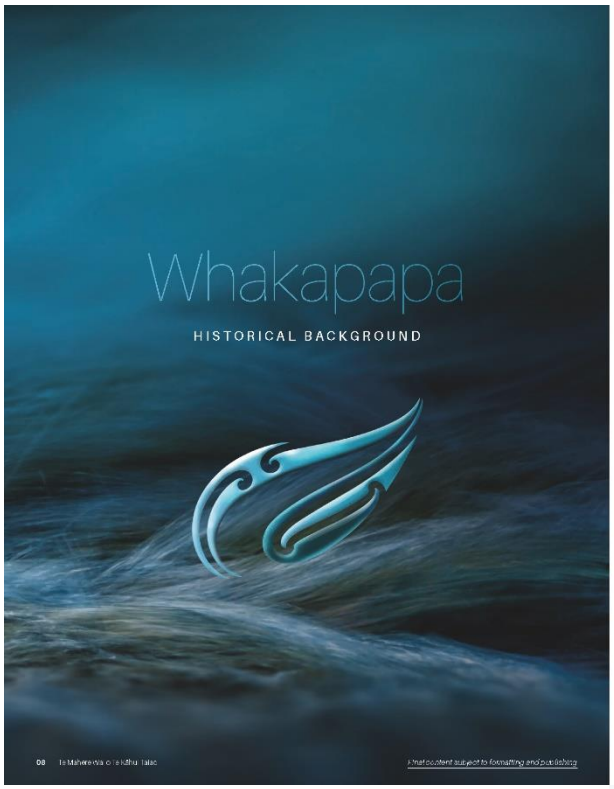
I tonoa ēnei Tupua e rua kia huaki i te waha o te Ika-a-Māui, ā, i whāia e rāua ō rāua ara ake, rerekē hoki. Nā tētahi i waihanga te ara whakaroto o te whanga, me tana waiho mai i nga tohu whenua ingoa-nui o Te Awa Kairangi, o nga moutere o Matiu, o Makara, o Mokopuna me Te Au-a-Tane.

I whai te tuarua i te ara whakaroto o te whanga, tīmata mai i te korokoro o te Ika-a-Māui me te waiho mai i ngā tohu ingoa-nui o Horokiwi, o Waihinahina, o Parikarangaranga, o Paroro rangi, o Tahataharoa me Ngā Ūranga.

Ko ēnei Tupua tokorua i hanga tō tātou whanga, ā, hei wāhanga taketake o ōna tohu, o ōna rerenga wai o ōna tangata, me ōna takotoranga whenua, e karapoti nei, e tuku nei i o rātou wai ki Te Whanganui a Tara.

Nā Kura Moeahu (Hereturikōkā/ Akuhata 2019)

(Te Kāhui Maunga, Te Āti Awa, Ngā Ruahine-rangi, Ngati Mutunga Taranaki Tuturu, Ngati Tama, Ngati Ruanui, Ngati Toa)



Whakapapa

HISTORICAL BACKGROUND

Taranaki Whānui ki te Upoko o te Ika whakapapa

Historical background of Taranaki Whānui ki te Upoko o te Ika

When the Treaty of Waitangi was signed (6 February 1840), the iwi (tribal group) living in Te Whaitua o Te Whanganui-a-Tara (Wellington Harbour) area originated from the Taranaki region of the North Island. The collective name given to this iwi is Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui). Taranaki Whānui are those people who descend from one or more of the recognised tūpuna (ancestor) of Te Āti Awa, Taranaki, Ngāti Ruanui, Ngāti Tama, Ngāti Mutunga and other iwi from the Taranaki area. Their occupation at the time and continued residence gives Taranaki Whānui the rights and duties of Mana Whenua. They are traditional guardians of Te Whanganui-a-Tara and associated lands.

Taranaki Whānui migrated to the Wellington area in the 1820s through to 1840s. Since then, Taranaki Whānui has maintained ahi kā (permanent occupation), Taranaki Whānui established kāinga and pepakāinga around the Wellington harbour (and other areas). The traditional kāinga, pepakāinga, mīra kai (gardens), mahinga kai (food gathering areas) and other sites of cultural significance have now been largely subsumed by urban development. Yet, Taranaki Whānui remain. Migration has meant that Taranaki Whānui are now a minority within their tribal takiwā (tribal area).

The takiwā of Taranaki Whānui extends from Paparangi to Remutaka, down to Turakirae, across to Rimurapa and back up to Paparangi. Taranaki Whānui has overlapping interests with Ngāti Toa Rangatira, Rangitāne o Wairarapa and Ngāti Kahungunu ki Wairarapa.

As Mana Whenua of the capital city of Aotearoa/New Zealand, Taranaki Whānui's vision is to ensure that their members not only maintain their place within the takiwa but are thriving and prosperous. The loss of land and the fragmentation of Taranaki Whānui descendants and whānau (family group) over the decades creates significant challenges as they seek to restore the rightful place of their members and descendants.

The Port Nicholson Block Settlement Trust (PNBST) was established in August 2008 to receive and manage the Taranaki Whānui Treaty settlement package as well as social, cultural, economic and environmental interests of Taranaki Whānui. As part of their Treaty settlement, Taranaki Whānui has a Statutory Acknowledgement over Te Awa Kairangi, Te Whanganui a Tara (the Harbour), the Coastal Management Area, and holds significant interests in all waterways within Te Whaitua o Te Whanganui-a-Tara.

Ngāti Toa Rangatira whakapapa

Historical background of Ngāti Toa Rangatira

Ngāti Toa Rangatira (Ngāti Toa) are a Tainui iwi descended from the eponymous ancestor Toa Rangatira, and those tupuna who established their mana to the Raukawa Moana (Cook Strait) region through raupatu (confiscation of land after conquest) and ringa kaha (military force) in the 1820s. Ngāti Toa established important historical and cultural associations within the rohe defined as "Mai i Mira te Kakara ki Whitiroia, whakawhiti te Moana Raukawa ki Wairau ki Whakatu" ("From the place known as Mira te Kākara in the Rangitīkei to Whitiroia in Pevirua, across Cook Strait to the Wairau Valley and the Nelson area.")

The area of Te Whaitua o Te Whanganui-a-Tara is intrinsic and integral to the maritime domain of Ngāti Toa and our allied iwi of Te Āti Awa, Ngāti Tama, Ngāti Mutunga and other iwi of Taranaki, Ngāti Rangatahi, Ngāti Koata, Ngāti Rarua and Ngāti Raukawa. We also acknowledge the interests of Ngāti Kahungunu and Rangitāne o Wairarapa east of Te Tuara Tapu o Te Rangihaeata (Remutaka and Tararua ranges).

Ngāti Toa authority, connection and values with Te Whanganui-a-Tara are constantly challenged, however, it is the vision of Te Rūnanga o Toa Rangatira "Ka tu ai a Ngāti Toa Rangatira hei whiria, hei iwi rangatira". Ngāti Toa, and Te Rūnanga o Toa Rangatira, acknowledge and affirm our responsibility to uphold the mana, rangatiratanga and mauri/ora of the land, waters, natural resources and people within the rohe as consistent with our kawa, tikanga and values.

The Ngāti Toa Rangatira Treaty Settlement with the Crown acknowledges the legitimacy of the customary rights and interests of Ngāti Toa in the area of Te Whaitua o Te Whanganui-a-Tara. Te Rūnanga o Toa Rangatira will work in partnership with Crown authorities and iwi partners to advance the kawa, tikanga and values of Ngāti Toa within the whaitua of Te Whanganui-a-Tara.

He Kupu Whakataki

FOREWORD

Tēnei ka tukuna atu ngā mihi kia koutou katoa.

Te Mahere Wai is a unique Indigenous body of work informed from a collaboration and partnership between Taranaki Whānui and Ngāti Toa Rangatira.

Both Taranaki Whānui and Ngāti Toa Rangatira recognise the individual, shared and collective history of both iwi (tribal group) within Te Whaitua o Te Whanganui-a-Tara. In giving effect to the shared kaitiaki (guardian) responsibilities and whakapapa based (genealogy-based) relationship with our natural environment, representatives from both iwi groups recognised the need to formulate a unique and unified Mana Whenua voice.

Mana Whenua representatives established Te Kāhui Taiao to enable iwi to discuss, debate and decide their contribution in wānanga (formal discussions to share knowledge) in a culturally safe space. Te Kāhui Taiao worked with iwi members at marae across the rohe to ensure the work reflects the heart and voice of what our people have told us, which informed our approach to our work and includes application of a:

1. Generational-kaupuna (grandchild/grandchildren) model to inform and influence our expected timeframes for change to freshwater bodies. This means that real change happens within the lifetimes of our grandchildren.
2. Holistic approach to freshwater bodies that reflect the interconnectedness of waters that flow from our key water sources, from mountains to coastal waters – known as "mai i ki ute ki tai" (from the interior to the coast).
3. Māori worldview based on relationships with the taiao – our mountains, rivers and tributaries are our ancestors. Therefore, our role is to protect and respect them as taonga through the provision of kaitiakitanga to ensure their survival.
4. Shifting our relationship from "managing water" to "healing water", in order to recognise our whakapapa (genealogy) relationships and the respect that water deserves in our lives.

In developing Te Mahere Wai, Te Kāhui Taiao met on a weekly basis, participated in wider Whaitua committee (regional committee) meetings and workshops, and attended and led numerous engagements with iwi members and kaitiaki (guardians). Te Mahere Wai is born out of a shared and collective sense of responsibility for our waters and is informed by Western science, community members, policy advisors and most importantly the voice and

aspirations of our kaitiaki, uri and kaumātua (guardians, descendants and elders). This approach ensured our work was implementable and grounded in kaitiaki knowledge (traditional knowledge of guardianship) and practices.

Te Mahere Wai is a Mana Whenua Whaitua Implementation Programme for Te Whanganui-a-Tara. It is a Te Tiriti o Waitangi partnership response specifically aimed at ensuring the voices of local Mana Whenua – Taranaki Whānui and Ngāti Toa Rangatira – sit alongside the voices of Crown partners and non-Māori communities. Te Mahere Wai is a companion document to the mainstream Whaitua Implementation Programme, and they should be considered and actioned together because they share an inter-dependency of knowledge, information and priorities.

Te Kāhui Taiao recognises that this report has been developed within a context of significant system change across New Zealand's public policy landscape including the Resource Management Act 1991 (RMA) reform, local government reform and a new national direction to protect and improve our rivers, streams, lakes and wetlands. These factors have been considered in the development of Te Mahere Wai and reinforce the expectation that upholding Te Mana o te Wai is the responsibility of regional councils, territorial authorities and the Crown (Mana Kaunihera), which has the legislative and regulatory authority for change. However, achieving implementation will require collaboration between the Crown, Greater Wellington Regional Council (GWRC), Territorial Authorities and Mana Whenua. This will mean the sharing of power and resources enabling stronger Te Tiriti o Waitangi partnerships.

Te Kāhui Taiao have heard very clearly from their people that their expectations are high and that returning mana to the freshwater system of this Whaitua is a priority that cannot be achieved alone. We are strongly of the view that GWRC will need to act quickly to build its organisational capability and confidence to fulfil its Tiriti obligations, responsibilities and commitments, starting with authentic relationships with iwi and Māori.

Te Mahere Wai will also look to draw from and support the Te Whanganui-a-Tara Whaitua Implementation Programme.

Formed in early 2020, Te Kāhui Taiao is made of up Taranaki Whānui representatives Sam Kāhui and Kara Puketapu-Dentice, and Ngāti Toa representatives Naomi Solomon and Hikitia Ropata. The group was supported by a project team of highly experienced advisers – Vanessa Tipoki, Aarta Ripeka Dobson-Wallace, Te Ilangimarie Williams, Mike Grace, Morrie Love, Phillip Parker, Brent King, Tui Lewis, Gabriel Tupou, Nora Moore, Emily Osborne and others.

[insert salutation]


Sam Kāhui

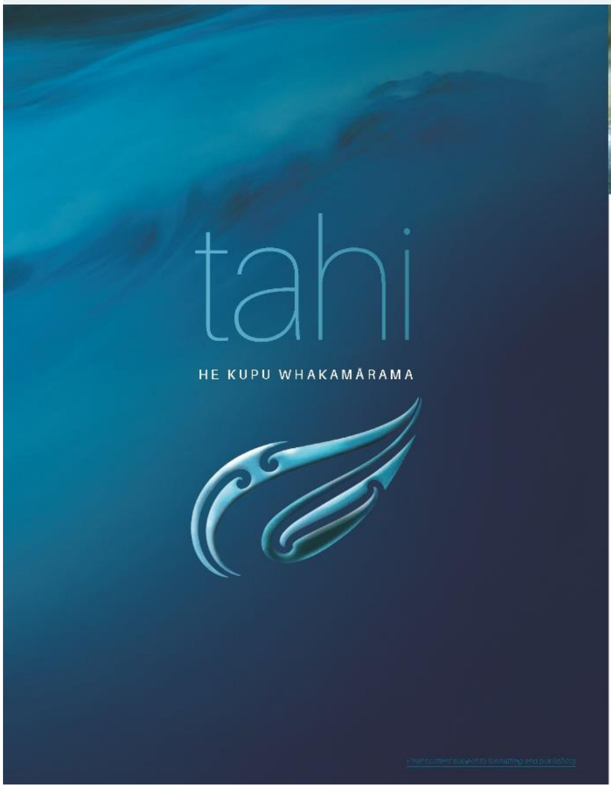

Kara Puketapu-Dentice


Naomi Solomon


Hikitia Ropata

Ngā kai o roto

CONTENTS



1 He Kupu Whakamārama

INTRODUCTION

1.1 Mātauranga Māori

Māori knowledge

Whakapapa (genealogy) is one part of a fundamental value and belief system that is important in traditional Maori society. Whakapapa forms a Mana Whenua (iwi recognised as having mana over a region) understanding of the world around us, and when we build whakapapa (genealogy) connections we come to an understanding and realisation that nature has its own way of doing things, of acting and responding and we, the ira tangata (people), are only one piece of that interconnected and interdependent system. Our responsibility within that system is to maintain and uphold a positive and meaningful whakapapa-based (genealogy-based) relationship with our environment. As Mana Whenua, we are not above the environment – we are tūpuna (ancestors) and uri (descendants).

The korero tuku iho (inherited traditions) of Taranaki Whānui and Ngāti Toa Rangatira tell us that there is no good or bad, punishment or reward for how we act toward one another and our environment. Within our world, there are only consequences. When we sit in solemnity with our environment, we will hear and feel the vibrations of whakapapa (genealogy). When we feel those vibrations, we know intimately what must be done.

1.2 Tō Mātou Mana Whenua
Our Mana Whenua Authority

Within the Treaty of Waitangi Settlement Acts for both Taranaki Whānui and Ngāti Toa Rangatira there is a clear expression of relationship and connection to the waters and environment within Te Whaitua o Te Whanganui-a-Tara.

These Settlement Acts place a codified marker on sites and environments where Mana Whenua (iwi recognised as having mana over a region) have a whakapapa-based (genealogy-based) relationship with our environment. Acknowledgement of these sites and environments means the Crown and its agents are bound to recognise and provide for whakapapa based (genealogy based) association with our waters. Iwi can thus exercise their mana, and care for the mauri/mauri (life force) of their waters.[1]

Mana Whenua and the wider community have much to gain from strengthening our connection to our environment, learning its stories, feeling its vibrations of whakapapa (genealogy), and giving heed to its identity. These are the foundations that will assist us as we respond to the changing needs surrounding climate change and resilience in Te Whaitua o Te Whanganui-a-Tara.

Mana Whenua see Te Mahere Wai as a crucial means of changing how things were done in the past. We must create new ways of operating, thinking and doing to ensure that te mana me te mouri/mauri o te wai is enhanced for our community of today and our mokopuna of tomorrow.

1.3 Te Māhere Wai
The Plan for Water

Te Mahere Wai charts a path of innovation – a tupuna (ancestor) pathway that, through its implementation, will see the change in our collective behaviours that ensure within this takiwā (where we may be closer to a whakapapa-based (genealogy-based) relationship with our waters.

Te Mahere Wai seeks to correct the relationship we have with our environment through the articulation of our ways of being which are sourced from our Mana Whenua (iwi recognised as having mana over a region) relationship with Te Whaitua o Te Whanganui-a-Tara.

Te Mahere Wai challenges us as Mana Whenua to remain true to who we are and apply that in a manner consistent with our respective tikanga and kawa. With our partners and friends, we will recreate something that others may see as unique, but to us, will be a mirror of our not-so-distant past.

Te Mahere establishes a Te Oranga Wai measurement framework that assesses Mana Whenua's confidence in the mauri/mouri (life force) of our wai and enables the expression of our kaitiakitanga.

[1] Two dialect variants.

2 Whakarāpopototanga Horo
EXECUTIVE SUMMARY

Te Mahere Wai is the guiding framework developed by Te Kāhui Talao and reflects our Mana Whenua (iwi recognised as having mana over a region) perspective and direction in giving effect to the National Policy Statement for Freshwater Management 2020 (NPSFM 2020) within Te Whaitua o Te Whanganui-a-Tara.

This document establishes the mana whakahaere (authority to manage) of our iwi in the management of our fresh and coastal waters for Whaitua Te Whanganui-a-Tara.

It is our intention that the issues raised in Te Mahere Wai are addressed through the application of our kaitiakitanga (duty of care as guardians) and associated tikanga (practices) and matauranga a iwi (iwi knowledge).

Te Kāhui Talao have worked with Mana Whenua, kaitiaki and kaumātua (elders) in the region to capture values and aspirations for Te Whanganui a Tara. This includes setting down a Taranaki Whānui and Ngāti Toa Rangatira approach to giving effect to Te Mana o te Wai, which applies the hierarchy of NPSFM 2020 obligations, adopts an integrated approach "mai i uta ki tai" (from mountain to sea) and describes how matauranga Taranaki Whanui and Ngati Toa Rangatira can be utilised in freshwater management. It includes recommendations that will inform future plan changes and new management frameworks that implement our values.

Te Mahere Wai: Planning and decision-making process

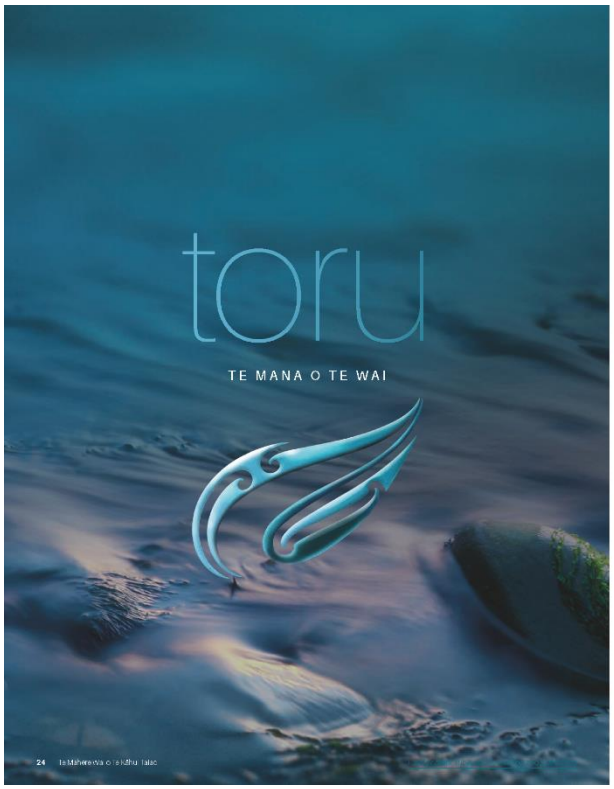
Te Kāhui Talao recognises that, in order to give effect to the aspirations of Taranaki Whānui and Ngāti Toa Rangatira iwi as it relates to wai, there is a need to create an alignment between Te Mahere Wai and the National Objectives Framework (NOF). This approach recognises the two-world view and knowledge systems that Mana Whenua have to navigate.

The key NOF process steps in Te Mahere Wai are set out below. They each have their own section in this document.

1. **Ngā take** - Summarising key water issues held by Mana Whenua for the whaitua.
2. **Ngā wai whakatupuranga** – Identifying and describing long term visions for the whaitua from a Mana Whenua perspective.
3. **Te Mana o te Wai** – Articulating statements about what Te Mana o te Wai looks like in Te Whanganui-a-Tara.
4. **Wāhi Wai Maori** – Identifying eight spatial areas called Freshwater Management Units for FMUs in the region.
5. **Uaratanga** – Identifying Mana Whenua freshwater values (uaratanga) that apply to an FMU or part of an FMU in the region.
6. **Huanga** – Setting environmental outcomes (huanga) for each uaratanga for each of the eight FMUs.
   - 6.1. **Tikanga** – Identifying attributes (tikanga) for each uaratanga (value/values).
   - 6.2. **Te Oranga Wai** – Setting target attributes states to support the achievement of the environmental outcomes (huanga).
   - 6.3. Addressing environmental flows and levels to support water quantity environment outcomes.
7. **Ngā Taunaki** – Outlining a series of recommendations to GWRC including future developments through plan changes.

Ka ‘te te wai nei ki wai Kimihia
‘The water here is like that of Kimihia’[4]

Taylor records that, when Turi settled at Pārae, he had a spring that was said to be as good as the one named Kimihia in Tawaiki. No 1118, P 183, Nga Pepeha a Nga Tupuna VUW Press 2001.



3 Te Mana o te Wai

THE MANA OF WATER

Te Mana o te Wai ensures that our Mana Whenua (iwi recognised as having mana over a region) responsibilities and interests are voiced, heard and acted upon.

Iwi have always asserted their right to sit at the table as a partner to the Crown, including regional council. Unfortunately, this model of partnership has had limited success largely due to the Crown's (and regional council's) lack of desire and ability to appropriately provide for iwi/Māori rights and interests. In addition, regional councils have, through regulation, policy, monitoring and management practices, assumed sole authority and responsibility for upholding the health and wellbeing of our waters. To date, poor legislation has failed to recognise the rights and interests of iwi and hapū in the freshwater space.

When Mana Whenua are afforded a space within the governance and management of our waters, regional councils fail to provide the necessary resourcing meaning that any progress made is fatally flawed due to the lack of funding. The assumed authority that regional councils have had over the governance and management of water underminas rangatiratanga and has played a significant part in why our future generations will inherit a significantly degraded freshwater environment.

Mana Whenua demand a change to the status quo. Achieving Te Mana o te Wai requires active and meaningful participation and partnership with Mana Whenua – there is no other remedy. For this reason, Mana Whenua see the National Policy Statement for Freshwater Management 2020 (NPSFM 2020) as a "game changer" in how we as Iwi Māori participate and lead in the governance and management of freshwater today and into the future.

The NPS-M 2020 requires the management of freshwater through a framework that gives effect to the fundamental concept of Te Mana o te Wai. Te Mahere Wai is an expression[2] of Te Mana o Te Wai for Taranaki, Whanganui and Ngāti Toa Rangatira.

2 This is an expression of Te Mana o Te Wai. However, it is not the only expression.

3.1 He Whakapuaki Kaupapahere ā-Motu

National Policy Statement for Freshwater Management

Under the NPSFM 2020, regional councils must now **actively involve** tangata whenua (Mana Whenua) in the practice of freshwater management, which includes decision-making processes. This directive from central government is irrefutable. The change in approach is supported by a set of legal requirements that direct regional councils to actively involve Mana Whenua in the development of their regional plan, the Proposed Natural Resources Plan (PNRP).

This is a significant shift from regional council's earlier engagement with whānau in the past. For example, for the Te Awarua o Porirua and the Ruamahanga Whaitua, the council was only required to **reflect** tangata whenua values and interests in freshwater management and decision making.

The new national policy statement also says that councils **must give effect** to Te Mana o te Wai.[3] Te Mana o te Wai in this context has six principles that describe how tangata whenua and the wider community can be involved to inform freshwater management in the future. These six principles are outlined below:

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

3 See Policy 1 and clause 3.2(2) of the NPSFM 2020.
4 Clause 1.3(4) of the NPSFM 2020.

3.2 Mana whakahaere

Authority to manage

Taranaki Whanui and Ngāti Toa Rangatira hold Mana Whenua authority over Te Whanganui a Tara (they are the iwi recognised as having mana over the region). Te Kāhui Takao expect and anticipate that GWRC will formalise power sharing with Mana Whenua through tools enabled by the RMA. These power sharing tools include such instruments as joint management arrangements, mana a rohe, and transfer and delegations of powers and resources, as a way of giving effect to mana whakahaere and Te Mana o te Wai. These are key provisions that every regional council must investigate when determining how to involve Mana Whenua in freshwater management.[5]

As such, whilst mana whakahaere (authority to manage) is not a phrase that is generally adopted by Taranaki Whanui and Ngāti Toa Rangatira – it does reflect the need to involve Mana Whenua in decision making that affects the maunimount life force of freshwater, and the relationship between Mana Whenua and freshwater.

3.2.1 Te Whakatau Take me te Mana Whenua

Partnered Decision Making with Iwi recognised as having authority

There are varying models adopted by Mana Whenua throughout Aotearoa that express decision-making at a partnered (or more) level.

In terms of partnered decision making for the new regional freshwater plan, the Te Kāhui Takao model is one of a variety of models that could be adopted by Mana Whenua to ensure partnered decision making. At the very least, partner decision-making models must:

- ensure at least 50% Mana Whenua representation on any decision-making bodies, and
- ensure adequate resourcing of Mana Whenua to participate in the process.

5 See clause 3.4(3) of the NPSFM 2020.

3.3 Te Whakatāhuhutanga o ngā herenga o Te Mana o te Wai

Hierarchy of Te Mana o Te Wai obligations

Te Mana o te Wai sets out a hierarchy of obligations which means that all decision-making must prioritise the health and wellbeing of water before providing for other consumptive uses.[6] The hierarchy is:

1. First, to protect the health and mauri/mouri of the water;

2. Second, to provide for the essential human health needs, such as drinking water; and

3. Third, to enable people and communities to provide for their social, economic and cultural well-being, now and in the future.

These considerations have been foremost in all of Te Kāhui Taiao's aspirations, values, outcomes, and recommendations and resonate with Te Ao Māori world view. While Te Mana o te Wai obligations are set at a national level, Te Kāhui Taiao and Mana Whenua (iwi recognised as having mana over a region) are defining what it should look like at a local level.

3.4 Mahinga Kai – Te Karu Wai Tai o Te-Ika-a-Māui

I harvesting food in tho saltwator oyo of tho fish of Maui (the Wellington Harbour region)

Te Mahere Wai addresses water quality and quantity requirements of the NPSFM 2020 through the Mana Whenua relationship with mahinga kai.

Mahinga kai is a compulsory national value in the NPSFM 2020. The RNRP states that the viability of mahinga kai (whether the species, the habitat or the activity of cultural harvest) is recognised as the Mana Whenua lens and cultural determinant for assessing the mauri/mouri of Te Whanganui-a-Tara water quality and quantity. The ability of Mana Whenua to fulfil their role as kaitiaki of mahinga kai and express their manaakitanga to others through provision of mahinga kai to manuhiri (honoured guests and customary events) are central constructs to Mana Whenua identity and wellbeing.

In many cases Mana Whenua have been unable to maintain their kaitiaki relationships with mahinga kai due to loss or contamination of species and loss of habitat.

Te Mahere Wai uses a unique Mana Whenua assessment framework called Te Oranga Wai to measure water quality and quantity and set target attribute states and timeframes for improvement against Mana Whenua hauora (outcomes) across eight spatial units. To Mahere Wai and Te Oranga Wai assessment models focus on the wellbeing of mahinga kai, a compulsory national value and key aspect of understanding Te Mana o Te Wai. Mahinga kai is a uniquely indigenous construct that explains our relationship with water and te taiao.

Mahinga kai is not a value that is able to be measured by regional councils or Crown agencies. Regional councils rely largely on Mana Whenua measures, limits and targets in order to meet the requirements of the NPSFM 2020 and to give effect to Te Mana o te Wai. To achieve mahinga kai hua/outcomes Mana Whenua must be able to exercise mana whakahaere and implement mātauranga-ā-iwi including frameworks and the transfer of that information into legislation.

Te Whanganui-a-Tara is Te Karu Wai Tai o te Ika, the salty eye of Te Upoko o Te Ika a Maui (the head of the fish of Maui), the freshwater eye being Wairarapa Moana. A Mana Whenua view of water is formed through the eye of the fish and the health and wellbeing of our harbour. We understand the health and wellbeing of our water through understanding the health and wellbeing of our fish and aonga species (highly esteemed species), and the places that they live. We assess their health and that of the water through our mahinga kai cultural harvest practices. These practices are informed by the wairua and whakapapa (genealogy) connections we have with our awa tuuiaa (ancestral rivers), our water, our environment and the knowledge passed down to us, that informs our kaitiakitanga relationships. In summary:

- Our kaitiakitanga relationship with water is through mahinga kai.
- Mahinga kai are the places where we practice our cultural harvest.
- Mahinga kai are the taonga species (plants, birds, fish and animals that we provide for as kaitiaki.
- Mahinga kai are the activities which we undertake as kaitiaki.
- Mahinga kai activities enable us to maintain and transfer kaitiaki knowledge between generations.
- Mahinga kai supports cultural wellbeing (through manaakitanga) i.e. the provision of kai to our guests.
- Mahinga kai enables us to assess the wellbeing of water and all that it supports, including people.
- Te Oranga Wai is a wai ora assessment framework that measures the health of our environment through Te Karu o Te Ika a Maui; mataurangā-a-iwi, the knowledge held by our people and observed through time, and our seasonal interaction with our waters.

[6] See clause 2.1 of the NPSFM 2020.

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4 Ngā Take

THE ISSUES

Ngā Take are the key freshwater issues of Mana Whenua (iwi recognised as having mana over a region) in Te Whanganui-a-Tara. Te Kāhui Taiao consider that a completely new framework for freshwater management is required so that GWRC tackle water degradation "head on," provide equity for Mana Whenua partners, and remedy the appalling lack of investment in the region's waterways.

Greater Wellington Regional Council and Territorial Authorities have made it clear that they are under-resourced to maintain water quality. This limits their monitoring and compliance role, and there is no unifying strategy to address water quality at a whaitua scale.

As a result, Mana Whenua have not been able to maintain their kaitiaki relationships with their awa (river). This is largely due to a lack of equitable partnership and resourcing, the loss or contamination of species and the loss of habitat. This has had a significant impact on Mana Whenua who have been prevented from exercising their rangatiratanga (chiefly autonomy) and manaakitanga (hospitality, generosity and care for others). The degradation of waterways, dwindling mahinga kai stocks and increasing limited access to sites means that iwi and hapū are no longer able to host or feed manuhiri (visitors). A fundamental value of Māori society is now at risk.

4.1 Te kounga o te wai

Water quality

Water quality is linked to the mauri/mouri (life essence) of rivers and streams and coastal waters. Water quality is impacted by point source discharges and leaching and run off from urban and rural sources. Pollutants include phosphorous and nitrogen (and the resulting increase in algal growth), sediment, effluent, heavy metals, bacteria, organic outputs, and hydrocarbons. Water abstractions also impact on water quality through loss of dilution factors.

Estuaries and coastal mahinga kai areas are of particular significance to Mana Whenua and suffer the worst impacts of uncontrolled sediment loss to water. Sediment also has a disproportionate effect on the many small streams which are habitat for mahinga kai, and which are traditional kaitiaki food gathering places.

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4.2 Ngā tukunga wai paruparu

Wastewater discharges

Protection of the mauri/mouri and the ecological values of individual waterways is a priority for Mana Whenua. Discharges can impact on the ability of a waterway to undertake its role in supporting life contained within and around it.

Discharges of human and animal waste diminish the mauri/mouri of fresh and coastal waters. The flow of contaminated water through the environment impacts all Mana Whenua values undermining whakapapa (genealogy) relationships with ngā atua (gods) to support hauora (well-being) through their interactions with each other and te iwi tangata (people).

Wastewater directly impacts the mana of water and waterbodies by limiting its ability to cleanse itself and provide for other forms of life. The awareness that water and waterbodies are degraded is the cause of immense grief to Mana Whenua who associate their own wellbeing and identity directly with that of their ancestral wai (waterways), awa (rivers) and takutai (coast).

The presence of human waste in fresh and coastal water has undermined the cultural identity of Mana Whenua, by disabling their relationship with their takiwā (traditional region), and in many instances completely halting cultural practices and the transmission of intergenerational knowledge.

The pervasive presence of human waste in waterbodies across the whaitua is the singular most significant issue for Mana Whenua and the matter that should be given greatest priority by Council. Te Mahere Wai measures Mana Whenua values for fresh and coastal water. These values are fundamentally different than those used in the measurement of water by western science monitoring tools. This difference is most clearly seen within the tapu (restricted) - noa (available) construct utilised by Mana Whenua to assess water quality.

To Mana Whenua, the mere presence of human waste ie, (anything that comes from the body, blood, human ashes, hospital and mortuary waste, and sewage) contaminates water and creates a spiritual and cultural risk to community.

Water becomes tapu (restricted) for food gathering or customary cleansing through contamination by human waste. Its use can only be restored through the removal of human waste. This is clearly different from models that show degrees of contamination for specific contaminants but are not conclusive in directing how communities should respond to the individual and cumulative effects of contaminants.

The impact of wastewater discharges into the coastal environment is both significant and not well understood, and this is particularly true for mahinga kai in the receiving marine environment.

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4.3 Ngā tukunga rerenga waipuke

Stormwater discharges

Stormwater carries a large array of contaminants and their presence directly impacts on the cultural identity of Mana Whenua. During high rainfall events, stormwater systems transport large volumes of water quickly to streams and rivers, causing rapid increases in water levels that have a detrimental impact on taonga species, fish habitat and bank stability.

Te Kāhui Taiao are particularly concerned about cross connections between sewage and stormwater which deliver sewage directly to waterways and groundwater. The absorption of stormwater into wastewater pipes also routinely overwhelms treatment plants, forcing direct discharges of untreated sewage to fresh and coastal waters.

4.4 Ngā tangohanga wai

Water takes

The flow, level and variability of flows in a watercourse is key to supporting the uaratanga (value/values) of Mana Whenua. If a river cannot express its character at a range of flows over the seasons, then Te Mana o te Wai cannot be given effect to.

Te Kāhui Taiao are very concerned about the water allocation process of regional councils. There is limited monitoring of conditions of consents, or flows, and very little enforcement in place for those who break the rules. Low flows have a direct impact on the mauri/mouri of freshwater and the impacts of low flow on mahinga kai species and habitat, customary use and human health are significant.

Water takes can also have an impact on the hydrology and ecology of local water bodies, and water quality. Low flows limit fish passage and habitat, increase temperature, and concentrate pathogens that harm mahinga kai species.

Te Kāhui Taiao are also concerned about the cumulative effects of current permitted takes on smaller streams. Small streams are particularly vulnerable during low flow and even minor changes to conditions or use can have significant effects on mahinga kai. Small streams are not monitored and low-flow settings are based on national modelled data and are therefore not specific to the individual stream.

Inefficient use of water can have a disproportionate impact on the smaller streams, including permitted takes for farms and lifestyle blocks. Diminished flow and increases in water temperature can promote nuisance algal growth and this directly impacts on Mana Whenua access for spiritual and ceremonial purposes, including the availability of wai ora (living water) for tohi (baptism).

Identifying acceptable limits for our waterways is therefore essential to maintaining their ecological and cultural health, and Mana Whenua have a key part to play in this.

4.5 Ngā tangohanga wai tāone

Municipal takes

Water takes are also an issue for Te Kāhui Taiao and Mana Whenua. Water abstracted in Te Whanganui-a-Tara is predominantly for domestic use and industrial use. Te Awa Kairangi, Wainuiomata and Ōrongorongo Rivers and the Wairarapa Aquifer provide water for municipal use. These takes are also linked and piped to Porirua. The result of mixing is that the mauri/mouri and mana of each awa is significantly reduced. In addition there is little public recognition for the role these awa play in providing clean drinking water to the wider region.

While recognising that water take consents are already over-allocated, Te Kāhui Taiao demand that a rāhui/temporary prohibition be placed on any new consent applications until equity issues are addressed and a better process is developed for issuing consents.

4.6 Ngā Waiheke

Smaller streams

Āku Waiheke describes the smaller streams in the catchment and it literally means descending waters.

Te Kāhui Taiao are concerned that small waterways and drains have little protection despite their ecological value and function. First order streams in Te Whanganui-a-Tara represent 70% of the total length of all freshwater bodies in the region.[7]

Smaller water bodies are disproportionately affected by the cumulative effects of permitted water takes, discharges from old septic wastewater treatment systems, and from stock access and pugging.

Smaller water bodies have a value disproportionate to their size both individually and collectively. This is not recognised in existing freshwater management practice. Taken as a group they carry a significant proportion of total water volume in the catchment and are more important as habitat and breeding areas than main stem, high-flow environments. Traditionally these were the places that supported kāinga for domestic supplies of water as well as mahinga kai, ritual use, and other purposes. They have effectively lost their identity and role through urban and sub-urban development.

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7 Mike Thompson to confirm

Āku Waiheke (small streams) are imbued with layers of historical, cultural, and spiritual meaning of the many generations baptised in ngā wai heke (small water bodies), ngā manga (streams) and awa iti (small rivers) that ran past kāinga (home places). Indigenous fish rely on rich food sources, riparian values (shading and temperature) and diverse morphology of smaller water bodies and estuaries for spawning and habitat. These are also the places where they would typically be harvested according to the season and the all-important transfer of customary knowledge would occur from one generation to the next.

The small estuaries of these streams and the shellfish beds adjacent to them are particularly important for mahinga kai and are the places most affected by the cumulative effects of non-point source discharge of sediment, pathogens and nutrients throughout the catchment.

4.7 Ngā wai huna

Concealed waterbodies

Ngā wai huna are concealed waterbodies and they include aquifers.

In Wellington City all urban streams have portions that are piped and have lost their identity and natural form as a result. This has disconnected Mana Whenua from their whakapapa (genealogy) relationships with these important streams as their values are no longer visible like Āhumairangi in Thorndon, where five streams form. These processes have had the effect of concealing rather than diminishing their mana as important waterbodies and receiving waters for Te Whanganui-a-Tara. Recognition of these waterbodies is required to enable communities to reconnect with their local waterways and support their health.

The aquifers in Te Awa Kairangi are highly valued for municipal water supply and the essential contribution they make to human health and wellbeing. Aquifers, springs, rivers and wetlands are naturally connected, so when there is pressure on water quality or water levels in the main stem rivers, there is the risk that groundwater levels are also affected. These aquifers need to be carefully monitored and managed to eliminate the risk of saltwater intrusion brought about by over-abstraction, and to ensure they retain their wai māori (freshwater supply) values and core ecological function.

Clean water is measured by mauri/mouri, wairua, and connection to the atua (ancestral elements). In the Māori world piped water does not have the same level of protection as other wai (water) as it can not access atua like Tane (ancestor of terrestrial elements) and Tangaroa (ancestor of water element). It should also be noted that piped streams are typically considered part of the stormwater network and are not recognised for their ecological values by the RMP or the RMA. Therefore, should the piped stream be disturbed by an activity (for example construction), there is no requirement for ecological values to be considered or even for regional council ecologists to be notified.

In addition, badly designed or managed weirs, piped streams and culverts pose a problem for the movement of native fish species throughout a catchment by blocking upstream and downstream passage. The identification and retrofitting of fish passage structures to existing culverts, dams and weirs is required.

4.6 Ngā ritenga kaupare waipuke
Flood protection practices

Mana Whenua struggle to have a place at the table when dealing with the current flood protection framework which relies heavily on historical engineered approaches to flood risk. The reliance on an engineering model marginalises the knowledge and values of Mana Whenua and their management of awa. Many of the key flood protection activities are identified as high potential impact activities and require discretionary activity resource consent under the FNRP. These methods often directly impact on the remaining natural form and character of the region's rivers and streams. High-risk activities destroy mahinga kai species and habitat, ā rua (natural character), Mana Whenua sites of significance and the mauri/mouri of the awa. Often species like tuna (eels), fish, kākahi (freshwater mussels) and kōura (freshwater crayfish) are dug out with sediment and die on the riverbanks or are crushed by the digging equipment.

The development and maintenance of flood protection infrastructure affects mauri/mouri through loss of natural morphology (shape) and flow patterns of waterbodies. The channelisation of rivers and streams for flood protection directly diminishes Te Mana o te Wai constraining the ability of the awa to express its identity through form and character.

Te Awa Kairangi and Wainuomata have both been significantly modified over the years and their design channels are constrained and there is not enough room for scour, deposition, erosion, or accretion to occur. By confining and straightening these waterbodies, the diversity of mahinga kai habitat is reduced, as are pools and areas for customary or recreational use. Continuous works in the bed of rivers and estuaries (such as grading and gravel removal) affects mauri/mouri through the release of sediment and contaminants. In particular, the continuous release of fine sediment from flood protection works is directly related to the release of contaminants and the resulting proliferation of toxic algae.

Te Kāhui Taiao expect that regional council will undertake best practice in all future river management, including in particular those length of rivers that they own.

4.9 Ngā mātāpuna me te pānga o te whanaketanga me ngā ngahere nā te tangata I whakatō
Headwaters and impacts of development and plantation forestry

Te Mātāpuna (headwaters) are recognised as the source of wai ora, or pristine water. They are critically important for Māori because of their high water quality. Protection of the source of drinking water must be prioritised to guard against water contamination and illness. These sites often lack recognition and protection because they are more likely to be remote and forested. Their location does not necessarily give them protection as their steep morphology and higher rainfall makes them very vulnerable to soil loss if not treated with respect.

In addition, as reported by regional council, there is little regulatory oversight, particularly around plantation forestry. The effects of clear-fell forestry and the significant impact of sediment and chemical application on these areas expose headwater catchment areas to extended periods of sediment run-off and contamination.

Te Mātāpuna are also affected by poorly designed Greenfield housing developments. Te Kāhui Taiao consider that piping infill, or reclamation of mātapuna (headwaters) should be avoided.

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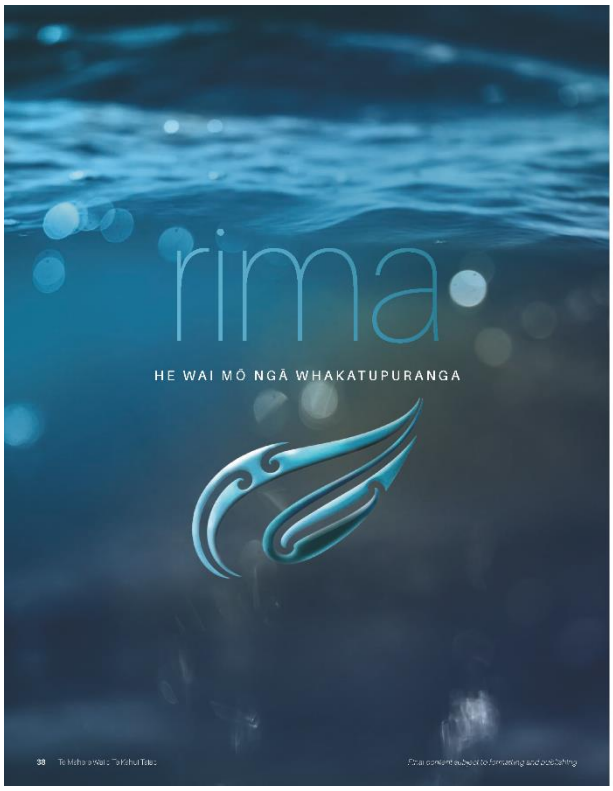


5 He Wai mō ngā Whakatupuranga
WATER FOR GENERATIONS TO COME

He Wai mo nga Whakatupuranga are the moemoea (long term vision) of Te Kāhui Taiao for the water bodies and freshwater ecosystems in the region.[8] We give a generational perspective of how Mana Whenua envisage the waterways might look like from a generational approach. It is about our mokopuna (grandchildren). We have the expectation that our mokopuna will see real improvement in water quality in their lifetimes based on the implementation of the recommendations we have laid down in Te Mahere Wai.

These long-term visions set goals that are ambitious, reasonable and timebound, and outline the wishes of Mana Whenua for waterbodies and how they foresee the catchment could look like in the future.[9] It is our expectation that GWRC will assess whether these moemoea (aspirational) are being met, and that He Wai mō ngā Whakatupuranga form objectives in the Regional Policy Statement.

Te Kāhui Taiao have set out a series of vision statements for waterbodies and catchments in Te Whanganui a Tara for the short, medium and long-term. These have been taken through into our Te Oranga Wai model for assessment of change required and the establishment of timeframes for implementation.

8 See clause 3.3(3) of the NPSFM 2020.
9 See clause 3.3 long term visions for freshwater in NPSFM 2020.

Pēpē me ngā Tamariki (Short term 0 – 10 years)

Babies and Children (Short term 0 – 10 years)

- All freshwater decision-making recognises and treats waterbodies as having their own intrinsic values and identity including spiritual, climate considerations.
- Te Mātāpuna/headwaters are wai ora in the Te Awa Kairangi, Ākatārawa, Pākuratahi, Whakatīkei, Mangaroa, Orongorongo and Wainuiomata/Parakiwai catchments within 10 years.
- Mana Whenua have safe access to wai ora sites and can protect the cultural safety of the wai within 10 years.
- Pēpē (baby/babies) can be bathed in the Te Awa Kairangi, Ōrongorongo and Wainuiomata/Parakiwai catchments in the short term.
- We are mahi tuta kai tai (life giving waters from mountains to sea) are identified and protected within 10 years.
- Tamariki (child/children) can safely accompany whānau (family group) in activities that connect them with their water; like waka ama (outrigger canoes), koha kai (food gathering) and mahi pārekareka (relaxation and recreation) in Te Awa Kairangi, Wainuiomata and Orongorongo within 10 years.
- Tamariki can safely swim at all traditional swimming places like the Double Bridges, Kaitoke, Manbank, Tata Rock, Pākuratahi Forks and the Ākatārawa and Pākuratahi Awa within 10 years.
- Greater Wellington Regional council delegate decision making power to Mana Whenua for identified sites in the short term.

Rangatahi me ngā Mātua/Pakeke (Medium Term 10 – 30 years)

Children and Parents (Medium Term 10 – 30 years)

- All waterbodies in Te Whanganui-a-Tara are suitable for primary contact/kaukau (swimming) by 2041.
- Native fish have access to move freely up and down the entire length of the catchment to complete their life cycle within 20 years.
- Wai can safely 'na vast and deal (identified species) of local mahinga kai throughout the catchment in 20 years.
- Within 20 years mahinga kai species are plentiful enough in all catchments for long-term harvest including for manuhiri and to exercise manaakitanga.
- Tamariki (child/children) support mātua, tuākana and whānau, hapū and iwi to restore and protect awa (rivers) using tools like iwi kaitiaki plans (ie: guardianship plans) within 20 years.
- Pakeke (adults) are active in paid mana whakahaere roles overseeing monitoring, management, and improvement of wai ora in 20 years.
- Taiohi (adolescents/young adults) are active kaitiaki and kaitohutohu in the wider catchment and are introduced into wai ora monitoring programmes like Ngā Mangai Waiora (ambassadors for water) within 20 years.

Ngā Pakeke me ngā Kaumātua (Long-term 30+ years)

Adults and Elders (Long term 30+ years)

- All freshwater bodies in Te Whanganui-a-Tara are wai ora within 100 years.
- All estuarine areas are healthy and functioning within 100 years.
- The ahua (natural character) of the Korokoro, Kaiwharawhara, Te Awa Kairangi, Wainuiomata, and Ōrongorongo Awa and Parangarehu Lakes (Parangarehu Lakes is also an acceptable spelling alternative) is fully restored in the long-term.
- Pēpē (baby/babies) can be bathed in at least three wai ora associated with their whānau (family group) in the long term.
- Taiohi (adolescents/young adults) can access water in Te Whanganui-a-Tara for whakaaite (preparing for an important activity/event) and whakawātea (cleansing).
- Mana Whenua are the lead agency and regulator for protection and restoration of wai ora in 20 to 60 years' time.

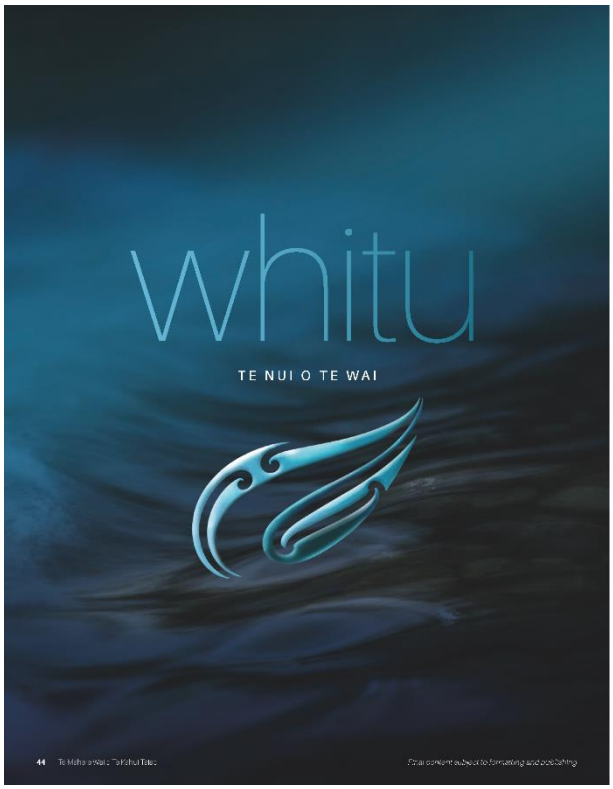
6 He Whakapuaki mō Te Mana o te Wai

TE MANA O TE WAI STATEMENTS

Te Kāhui Taiao have drafted a number of statements that outline a local approach on how to give effect to Te Mana o te Wai in Te Whanganui-a-Tara.[10] These statements are important and inform other parts of Te Mahere Wai. In Te Whanganui-a-Tara the care of freshwater gives effect to Te Mana o te Wai when:

10 See clause 3.4(1)(a) of the NPSFM 2020.

1. Mana Whenua are able to exercise kaitiakitanga and lead freshwater and coastal management decision-making.
2. Mana Whenua are able to implement and practice traditional rangatiratanga management techniques, for example, rāhui to protect the mana and mauri/mauri of water.
3. Mana Whenua are resourced to be active and have an integral presence as Ngā Mangai Waiora (ambassadors for water) in whaitua monitoring and management. Te Kāhui Taiao guidance on how to implement Ngā Mangai Waiora is attached as Appendix 3.
4. Mana Whenua have a visible presence in the management of mahinga kai and riparian and coastal areas through nohoanga (camp) and other cultural practices.
5. The mauri/mauri and life-supporting capacity of water in Te Whanganui-a-Tara enables the customary practices of Mana Whenua such as tohi (baptism), whakaaite (preparing for an important activity/event), whakawātea (cleansing), manaakitanga (hospitality) at a range of places throughout the catchment.
6. Mana Whenua are able to serve menu/hin fresh and coastal, mahinga kai species by 2041.
7. The well-being and life of the wai/water is primary.
8. The mana (dignity and esteem) of water as a source of life is restored and this includes regarding and respecting all waterbodies (including aku wai/roto), repo (wetland) and estuaries as living entities, and naturalising, naming, mapping, and protecting each.
9. Freshwater is cared for in an integrated way through mai i ua kā tai, from te mātāpuna (the headwaters), to the receiving environments (like the Parangarehu Lakes, Hīnemoana (the ocean), Te Whanganui-a-Tara (Wellington Harbour) and Raukawakawa Moana (the Cook Strait).
10. All freshwater bodies are managed holistically to allow them to exhibit their natural rhythms, natural form, hydrology and character.
11. Freshwater bodies are able to express their character through a range of flows over the seasons.
12. There are sufficient flows and levels to support connectivity throughout mai i ua kā tai and between rivers and their banks to support spawning fish.
13. Key areas like te mātāpuna (headwaters), estuaries and repo (wetlands) are prioritised for protection and restoration so that they are once again supporting healthy functioning ecosystems.
14. Mahinga kai species are of a size and abundance to be sustainably harvested.
15. Areas that are not currently able to be harvested (for example, coastal discharge areas and others) are able to be harvested by 2041.
16. Te Awa Kairangi, Wainuiomata, Korokoro, Kaiwharawhara, the Wainuiomata River and its aquifers are declared 'Te Awa Tupua' an indivisible and living whole, incorporating all its physical and metaphysical elements, and given 'legal personhood' in legislation.
17. Te Awa Kairangi, Wainuiomata and Ōrongorongo are publicly acknowledged for the part they play in supporting human health through their contribution to the municipal water supply, including for Porirua City.



7 Te Nui o te Wai

WATER QUANTITY/ABUNDANCE

7.1 He Anga Hou

New framework

The NPSFM 2020 has changed the way that water quantity is addressed. The previous policy only referred to minimum flows and allocation limits, but this has now been broadened to include environmental flows and levels and variability of flows.[11] These flows and levels could include cultural flows that must be accounted for when setting allocation limits.

The new hierarchy of obligations also changes the way that water quantity decision-making is defined.

Te nui o te wai is a key paratonga (value/values) for Te Kāhui Taiao in Te Whanganui-a-Tara. The current water allocation system does not support this value. A new water allocation framework is required that gives effect to Te Mana o te Wai and utilises mātauranga Māori in the development of policy, planning, and monitoring, including identifying environmental flows, levels and limits for awa within Te Whanganui-a-Tara.

Te Kāhui Taiao have proposed a new allocation framework that reinforces the NPSFM 2020 hierarchy of obligations that puts the rivers first, the needs of people second, and all other uses third.

11 Clause 3.5 of the NPSFM 2020.

7.2 Te Mauri Ora o te Wai (Taumata Tuatahi)

The Life force of the Water (Level One)

Water is provided to the awa (river) first to support te mauri/mouri.

Water is the lifeblood of Papa-tū-ā-nuku (the element of earth), and it is essential that flows support the mauri/mouri of water to ensure the health of all awa and tūpuna/ancestors. Not only should Taumata Tuatahi provide for Papa tū-ā-nuku (the element of earth) but flows should consider how they can support the realm of Tāne-nui-o-rangi, including Tangaroa and Tāne-mahuta. This will in turn support Te Mauri/mouri Ora o te Wai.

Many Whenua know through kōrero tūpuna/ancestral observations that water flows are depleting. Te Awa Kairangi, Wairu/Hutt River and Orongorongo are all used for municipal supply and this has had a significant impact on te nui o te wai. Āku Wai Heke (small streams) are also particularly susceptible to low flow due to cumulative water takes and the impacts of climate change. There is also limited data available from regional council to inform limit setting, flows and levels and thresholds. Te Kāhui Taiao recommend that a **precautionary approach** for water allocation is taken until more accurate baseline data is available.

Te Kāhui Taiao recommend that a working group is established to investigate ways to reduce takes and increase flows that include:

a. Alternative water storage options, both reservoirs and individual water storage;
b. Community education on "reduce, reuse and recycle" water;
c. Water metering and water charges;
d. Tax rebates as an incentive for efficient water use;
e. Reducing commercial takes during low flow;
f. Fixing network leaks;
g. Network upgrades at water treatment plants; and
h. Harvesting water at high flow.

7.3 Whakapapa (Taumata Tuarua)

Traditional place of water in creation and human life (Level Two)

Water is available to support essential human health needs.

Taumata Tuarua is the second requirement in the hierarchy of obligations and in order for it to be in place there must be a sufficient amount of water available to support the essential needs of human beings. This includes the physical health of humans and ensures the continuation of whakapapa (genealogy) that extends from Papa tū-ā-nuku (the element of earth) through awa, the present-day generation and all future generations. Essential needs of human beings include:

e. Quality drinking water to support health including for mirea and papakainga;
b. Water to maintain cleanliness / hygiene; and
c. Water that supports spiritual and mental health practices.

Again, without the required data, Te Kāhui Taiao is unclear about the quantum of water required to meet Whakapapa (genealogy) and recommends a precautionary approach to setting takes and limits is adopted until this data is available.

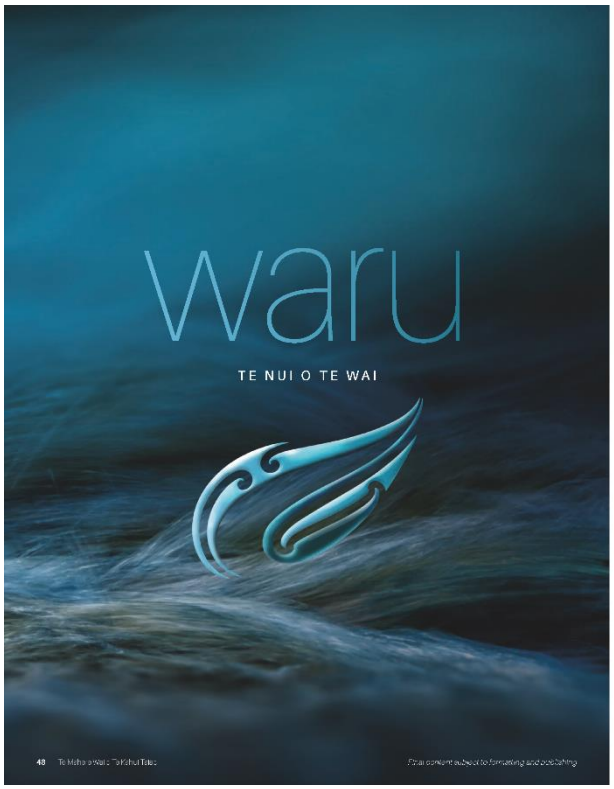
7.4 Ngā Mahi a ngā Tūpuna (Taumata Tuatoru)

Traditional practices of the ancestors (Level Three)

All other uses that do not impact on the mauri/mouri of the water quality.

Te Kāhui Taiao consider that there should be no additional allocation of water beyond what is currently consented until environmental flows, levels and limits are set for the whaitua/catchment. This could also include cultural flows. This could be achieved through a number of approaches that include a moratorium on any further water takes, a 'ring-fencing' approach and prohibiting the transfer of allocated water.

Te Kāhui Taiao have not had the opportunity to articulate what cultural flows for the catchment might look like. This has been picked up as a recommendation in the section below.



8 Ngā Taunaki Katoa

Ngā Taunaki are the recommendations made by Te Kāhui Tātaki to support Mana Whenua values and environmental outcomes for ngā awa in Te Whanganui-a-Tara.

8.1 Nga Mōtika me ngā Panga
Rights and Interests

1. The rights and interests of Taranaki Whānui and Ngāti Toa Rangatira in freshwater are acknowledged by GWRC.

8.2 Ngā Whanaketanga mō ngā wā kei mua mā ngā huringa ki te mahere
Future developments through plan changes

2. Mana Whenua are resourced to help complete the NOF process set out in section 3.7 of the NPSFM 2020 for Te Whanganui a Tara that includes:
   - 2.1. articulating additional attributes for Mana Whenua values;
   - 2.2. identifying baseline states for attributes;
   - 2.3. setting additional target attribute states for the different WAI/WAI Māori (FMUs);
   - 2.4. setting environmental flows, levels and limits for the major rivers, small streams and aquifers;
   - 2.5. articulating limits, management methods and mataurauranga Māori monitoring measures;
   - 2.6. agreeing a new quantum for permitted water takes;
   - 2.7. addressing non-municipal water supply; and
   - 2.8. completing the Te Oranga Wai attributes for freshwater and coastal receiving environments for inclusion in the PNRP as part of the 2022 and 2024 plan changes.

8.3 Wai ora
Water which sustains life

3. Identify and restore wai ora in all freshwater and coastal receiving environments in Te Whanganui-a-Tara **by 2071**.
4. Develop a wai ora measure that identifies the baseline state of wai ora from the headwaters (mai tāpuna) through to takutai moana (the sea).

8.4 Mahinga kai
Food gathering places

5. Mana Whenua are resourced to develop and implement a measurement framework for mahinga kai as a compulsory value in the NPSFM 2020 by **2025**. The framework will be overall to GWRC monitoring and will provide ongoing mahinga kai measurement for both water quality and quantity across eight spatial areas identified in Te Mahere Wai. The measurement framework will identify baseline states, attributes and target states for taonga species, mahinga kai areas, and mahinga kai activities.
6. Develop a whaitua scale Mana Whenua monitoring and reporting framework for mahinga kai.
7. The mainstream Whaitua Implementation Programme relies on Te Mahere Wai and ongoing Mana Whenua implementation to provide the assessment of compulsory mahinga kai values required in the NPSFM 2020. It is recommended that GWRC implement all mahinga kai recommendations to give effect to national policy directives.

8.5 Ngā Awa Tupua
Streams with a Spiritual Nature

8. Te Korokoro o te Mana (Korokoro Stream), Te Manga o Kaiwharawhara (including Te Mahanga and Kaimako Streams) and Wainuiomata are prioritised for protection and restoration.
9. The Korokoro and Kaiwharawhara Streams, and the entire length of the Wainuiomata Awa are designated as outstanding waterbodies in Schedule A: Outstanding Water Bodies of the PNRP.
10. Te Awa Kairangi, Akatarawa, Pākuratahi, Whakatikei, Wainuiomata, Te Awa o Orongorongo and the Parangarehu Lakes are classified as areas that have outstanding natural character in the PNRP.
11. The Korokoro and Kaiwharawhara Streams and the entire length of the Wainuiomata Awa are taonga and should be protected and restored by conferring a legal personhood on each.
12. Greater Wellington Regional Council work in partnership with Mana Whenua, Lower Hutt City Council, Kiwi Rail and Te Waka Kotahi to reinstate mai uta ki tai (inland to sea) pedestrian access between Hontana Te Puni reserve and Korokoro Stream.

8.6 Ko te Mana whenua hei Kaiwhakatau
Mana Whenua as decision-makers

13. Mana Whenua are resourced to implement Te Mahere Wai and are active and have an integral presence as Ngā Mangai Waiora (ambassadors for water) in whaitua monitoring and management of their freshwater taonga.
14. Greater Wellington Regional Council enter into a partnered management agreement with Mana Whenua so that they are actively involved in all freshwater management decision making processes in Te Whanganui-a-Tara. This includes giving effect to Te Mana o te Wai at a local level and developing, monitoring and implementing the Whaitua Te Whanganui-a-Tara WIP.
15. Greater Wellington Regional Council resources iwi management plans and joint management agreements under section 36B of the RMA where appropriate.[12]
16. Greater Wellington Regional Council delegates its powers under section 33 of the RMA to Mana Whenua (where agreed) to make decisions around freshwater management that includes (but is not limited to) monitoring of awa, and enforcement of resource consent conditions.
17. Greater Wellington Regional Council establishes a permanent Mana Whenua decision-making rōpū (group) to help develop and implement the WIP and Te Mahere Wai.
18. Greater Wellington Regional Council and Mana Whenua agree the rating resource to be allocated and managed by Mana Whenua for the management of Nga Awa Tupua within Te Whanganui-a-Tara.
19. Greater Wellington Regional Council supports the establishment of and provides operational funding for a Mana Whenua kaitiaki monitoring and management programme (like Ngā Mangai Waiora (ambassadors for water).
20. Greater Wellington Regional Council will support the implementation of Te Mahere Wai and the Whaitua Implementation Programme through the establishment of mataurauranga Māori expertise within the organisation.
21. Mana Whenua are resourced to undertake a review of traditional Māori names across Te Whanganui-a-Tara water bodies in order to promote their correct usage and retention and where possible, restore traditional names that have been lost.

8.7 Te Kounga o te Wai
Water quality

22. Activities affecting water quality will ensure that the water quality standards set in the PNRP, or the A band attribute state in the NPSFM 2020, whatever is more stringent, are achieved.
23. Greater Wellington Regional Council will prioritise removing the discharge of human effluent and waste to freshwater and coastal waterbodies.
24. All waterbodies and wetlands in Te Whanganui-a-Tara have planted riparian margins.
26. The steep rural land within the Southwest Coast Wahi Wai Maori (7 MU) is retired to allow native forest regeneration.

12 This is important as regional council cannot delegate powers to make decisions on resource consents, designations or policy statements/plans to iwi authorities without a joint management agreement.

8.8 Ngā tukunga wai paruparu, wai rerenga waipuke hoki
Wastewater and stormwater discharges

26. There are no discharges (point source or non-point source) that impact on water quality standards that are set.

27. Greater Wellington Regional Council along with partners, including Mana Whenua and District Councils, develop a plan to remove all direct wastewater discharges to freshwater within a generation (**20 years**).

28. Greater Wellington Regional Council immediately:

28.1. reviews all consented direct point discharges to freshwater, particularly the Silverstream discharge to Te Awa Kairangi, and discharges to the Karori and Waiwhetū Streams,

28.2. review all non-consented direct point discharges that includes monitoring and remediation.

29. Kaiwharawhara, Korokoro, Wainuiomata and Black Creek are prioritised for an audit of cross connections.

30. Sanitation systems like septic tanks are audited for a number of parameters including system design, age, structural integrity, soil type and maintenance issues.

31. Septic tanks are required to undergo a Warrant of Fitness (WOF) check where an onsite servicing specialist undertakes a regular WOF service and performance check.

32. Stormwater is captured and treated and where possible utilised as a resource. Where released to streams, it is released in a manner aligned with natural flow regimes.

8.9 Ngā tukunga takutai moana
Coastal discharges

33. Greater Wellington Regional Council along with partners, including Mana Whenua and District Councils works to remove all untreated wastewater discharges to takutai moana (the sea), within a generation (**20 years**).

34. Greater Wellington Regional Council will immediately:

34.1. identify the impacts of wastewater discharges on public health,

34.2. identify the impacts of wastewater discharges on mahinga kai, customary use, and Mana Whenua sites of significance through viral and faecal coliforms (fresh results of taonga species), and

34.3. resource science and mātauranga Māori capacity and capability to ensure that coastal discharges are monitored by Mana Whenua, managed, and remediated.

35. Greater Wellington Regional Council develop a wastewater management innovation programme that includes incentivising alternate waste disposal such as:

35.1. establishing incentivised compost toilet programmes including a rates rebate for those who disconnect their black water,

35.2. decoupling trade waste from domestic waste that includes onsite trade waste management innovation programmes, review and enhance pre-treatment requirements for trade waste and stormwater from industrial/commercial sites, and penalise non-compliance.

8.10 Te nui o te wai
Water quantity

36. Water takes are managed in a way that allows all rivers and streams to be healthy and flourishing. Natural flow variability is protected, long periods of low flow are avoided, and the natural movement of water and sediment through the awa is maintained.

37. Greater Wellington Regional Council and Mana Whenua establishes a decision-making framework for identifying environmental flows and levels, cultural flows and flow variability for all water bodies in Te Whanganui a Tara **by 2024**.

38. Cultural flows must be accounted for, **before** setting allocation limits.

39. Greater Wellington Regional Council and Mana Whenua are resourced to monitor and collect data that will inform water allocation and the setting of limits to achieve Te Mana o te Wai for every waterbody in Te Whanganui a Tara **by 2024**. The limits must be expressed as rules in the PNRP and will need to provide for environmental flows, levels and variability of flows and must clearly articulate:

39.1. the amount of water that can be taken,

39.2. the extent of flow variability,

39.3. how to safeguard ecosystem health from extended low flows,

39.4. life cycle needs, particularly for native diadromous fish species and their need for connectivity between the sea and land (and riverbed to banks when spawning during high flow events),

39.5. total volume and total rate, and

39.6. cease and restrict limits.

40. The limits for all streams outside the major water supply catchments are apportioned 100% MALF for the minimum flow and 30% of MALF for the allocation amount.

41. The new minimum flow of 100% of MALF is to be implemented for small streams in the upcoming regional plan change and applied when existing consents are reviewed or new applications are received.

42. Water quantity management must achieve 80% of MALF across all main-stem waterbodies **by 2071**.

43. The minimum flow levels for Te Awa Kairangi are lifted to achieve 80% of MALF **by 2050**.

44. All existing water take consents are reviewed to ensure the new limits are applied to existing consents.

45. Place minimum flow limits on the 3% or so consented takes in Te Awa Kairangi that have no minimum flow and monitor and meter each.

46. All water takes in the region are metered, including takes below 5L/s.

47. All consented takes have electronic meters **by 2027**.

48. The permitted take rule in the PNRP is removed so that takes above those allowed in section 14(3)(b) of the RMA will require resource consent.

49. Greater Wellington Regional Council works with Mana Whenua to clarify the meaning of "reasonable domestic use" and "stock drinking water" (takes outlined in the RMA.

50. All small streams are monitored for flow.

51. Te Awa Kairangi, Orongorongo and Wainuiomata are publicly acknowledged for supplying all the potable water utilised by the communities of Te Awarua o Porirua Whaitua. This is 12% of all water taken from these rivers.

52. A new water allocation model will include a specific low allocation.

53. There is a shut/moratorium on all future water takes reducing the limit to existing consented amounts.

54. The transfer of water consents and takes is prohibited.

55. Apply a "sinking lid" approach to clawback allocation whereby lapsed consents have their apportioned take returned to the awa or lie as a right of first refusal.

56. Greater Wellington Regional Council provides resourcing to strengthen compliance and enforcement of water takes, particularly those from or adjoining small streams.

57. Domestic water supply is prioritised over commercial use as articulated in the NPSFM 2020 hierarchy of obligations.

58. Commercial users must explore ways to use water more efficiently to reduce their water take.

59. Commercial takes reduce and cease during times of low flow.

8.11 Te tiaki i te awa katoa i raro i Te Mahere Wai
Te Mahere Wai holistic river care

60. A partnered management approach is adopted so that Mana Whenua have a meaningful role in developing, applying, monitoring and enforcing best practice holistic care for rivers.

61. Greater Wellington Council works with Mana Whenua to review the design channel, buffer zones and optimum bed levels in the relevant floodplain management plans for Te Awa Kairangi and Wainuiomata Awa.

62. Regional Council works with Mana Whenua to incorporate managed retreat and positive engineering options into the floodplain management plans for Te Awa Kairangi and Wainuiomata Awa.

63. Regional Council resource managed-retreat expertise in each level of decision-making.

64. The existing global flood protection consent is reviewed so that it gives effect to Te Mana o te Wai, by putting the needs of the river **first**.

8.12 Āku Waiheke
Smaller streams

65. Small streams are the "forgotten stream's" in rural and urban areas that are extensive, steep, and very vulnerable to stock. Under the existing regime they are unmanaged and this is an anomaly. Because the streams are small they are vulnerable to access by cattle and horses even at low stocking rates. The topography means that they are not required to be fenced because of the steep slope. We recommend stock exclusion is addressed through the farm plan process on a case-by-case basis.

66. Regional Council will work with Mana Whenua to:

66.1. exclude cattle and horses through farm plan processes,

66.2. establish environmental flows and limits for āku waiheke (small streams),

66.3. determine the health of mahinga kai species,

66.4. investigate unconsented takes, and

66.5. require resource consents for any new domestic takes where the impact cannot be assessed.

67. Marginal land on the south west coast to retreat to protect āku waiheke (small streams) and te mātapuna and the receiving coastal environment.

68. Cattle are excluded from all small stream catchments in the south west coast **within five years**.

69. Farming cattle in vulnerable catchments is not a permitted activity in the PNRP.

70. Greater Wellington Regional Council works with Mana Whenua to name all āku waiheke (small streams) and ngā wai hūnā (concealed waters) that are not named, or have anglicised names, with traditional Māori names.

71. Greater Wellington Regional Council works with Mana Whenua to identify and map āku waiheke (small streams) and ngā wai hūnā (concealed waters).

72. Greater Wellington Regional Council works with Mana Whenua to daylight ngā wai hūnā (concealed waters) where appropriate.

73. The ecological and cultural values of ngā wai hūnā (concealed waters) are given the same level of protection as natural streams and waterways.

74. Culverts, weirs and dams must allow for native fish migration, but block trout and pest fish access to uninvaded areas.

8.13 Te tiaki i te mātāpuna kei kino i ngā pānga o te whanaketanga me ngā ngahere nā te tangata i whakatō

Protection of te mātāpuna (headwaters) from the impacts of development and plantation forestry

76. Te mātāpuna (headwaters) are revered, protected, and restored as the ultimate sources of mauri/mouri for freshwater.

78. All plantation forestry near te mātāpuna (headwaters) must have harvest plans in place **by 2026** that:

76.1. are approved by Mana Whenua;

76.2. include Mana Whenua values and environmental outcomes in Te Whanganui-a-Tara;

76.3. meet best practice management requirements, including the use of riparian buffers;

76.4. prohibit the use of ecotoxic chemicals to poison vegetation;

76.5. prohibit blanket spraying of vegetation;

76.6. incorporate promote and incentivise selective felling;

76.7. promote the regeneration of native vegetation in the headwaters; and

76.8. are monitored regularly for compliance by Mana Whenua and Regional Council.

77. This includes **all** Greater Wellington Regional Council land that is currently in use for plantation forestry.

78. There is no harvesting of the existing pine plantation forestry in the Korokoro Wāhi Wai Māori (FMU).

8.14 Ngā mātāwainuku

Aquifers

79. Greater Wellington Regional Council and Mana Whenua work together to monitor the ecological function of Te Awa Kairangi aquifers using mātauranga Māori knowledge, and the monitoring of stygofauna.

80. Aquifer wells in Te Whanganui-a-Tara by Matiu/Somes Island are continuously monitored.

8.15 Ngā momo e kia nei he taonga

Taonga species

81. On the southwest coast seabird taonga species such as korora/penguins and tītī/muttonbirds are monitored, including for abundance and size to measure ecosystem health.

8.16 Ngā Wāhi Hira

Sites of significance

82. Greater Wellington Regional Council will share decision-making with Mana Whenua so that they are actively involved in determining whether a resource consent application for an activity near or on Mana Whenua sites of significance is more than minor.

83. Greater Wellington Regional Council will share decision-making with Mana Whenua so that they are actively involved in the restoration and protection of Mana Whenua sites of significance.

8.17 Ngā roto o Parangārehu

Parangārehu Lakes

84. Rōpū (group) Tiaki Mana Whenua and their iwi boards have tino rangatiratanga for setting priorities and visions for the lakes.

85. The current monitoring programme for the lakes is expanded and resourced so that it includes identifying attributes and baseline states for assessing achievement of Mana Whenua environmental outcomes.

86. Public access to the lakes is reviewed by Mana Whenua and Regional Council to address Mana Whenua concerns, particularly around the introduction of invasive species. Visitors (walkers and cyclists) to the lakes area must undertake biosecurity controls when entering the area.

87. The monitoring of taonga species is increased to support the long-term vision of sustainable cultural harvest of tuna and other valued species for special occasions like rangihanga.

88. Greater Wellington Regional Council continues to resource investigations to understand the ecological and water quality baseline for the lakes, including their connectivity to the sea, expected species and underlying soil characteristics **by 2036**.

89. Pest management is addressed to accelerate the improvement and restoration of the lakes.

90. Stock exclusion from waterways is prioritised in the area and GWRC will provide support to affected landowners in its implementation.

91. Greater Wellington Regional Council resources and supports Mana Whenua-led mātauranga Māori monitoring and care of the lakes and the whaitua/catchment.

92. If the historical material (post-earthquake) suggests connectivity to the sea for Lake Kōhangapiripiri, then Regional Council and Mana Whenua will develop and implement a plan for reinstating the lakes' natural ability to breach out to the sea.

93. That a public report card/dashboard tool is established for the lakes to clearly communicate the degree of achievement of the targets and outcomes. This could include mātauranga attributes.

8.18 Ngā Repo

Wetlands

94. All natural wetlands (including degraded wetlands) within Te Whanganui-a-Tara regardless of size are mapped and protected by GWRC.

95. All wetland margins adjoining natural and induced wetlands with outstanding indigenous biodiversity are:

95.1. mapped by GWRC;

95.2. restored so that they are once again a functioning part of the main wetland unit; and

95.3. protected by including them in Schedule A3: Wetlands with outstanding indigenous biodiversity values of the PNRP.

96. The area of land contiguous to any existing wetland that is scheduled as a wetland with outstanding indigenous biodiversity values, that includes (but is not limited to) the Maynton Wetlands and Mount Ochre Turfs is also captured within Schedule A3: Wetlands with outstanding indigenous biodiversity values of the PNRP.

97. All of the (approximately) 14 Parangārehu Lakes area are classified as wetlands with outstanding indigenous biodiversity values in Schedule A3[12] of the PNRP.

8.19 Te whakahoki o ngā whakaaetanga o tēnei wā

Recall of existing consents

98. Greater Wellington Regional Council reviews all existing consent conditions that apply to an activity within 500 metres of an awa so that they reflect allocation limits and water quality standards in the PNRP Operative Rules, R[14, 15] and give effect to Te Mana o te Wai as required in the NPSFM 2020.

12 Wetlands with outstanding indigenous biodiversity values.

14 See section 128(1)(b).

15 Rule R50: Stormwater from a local authority network at plan notification – controlled activity.

8.20 Te whakaea i ō mua hē i te whaitua

Catchment restorative justice

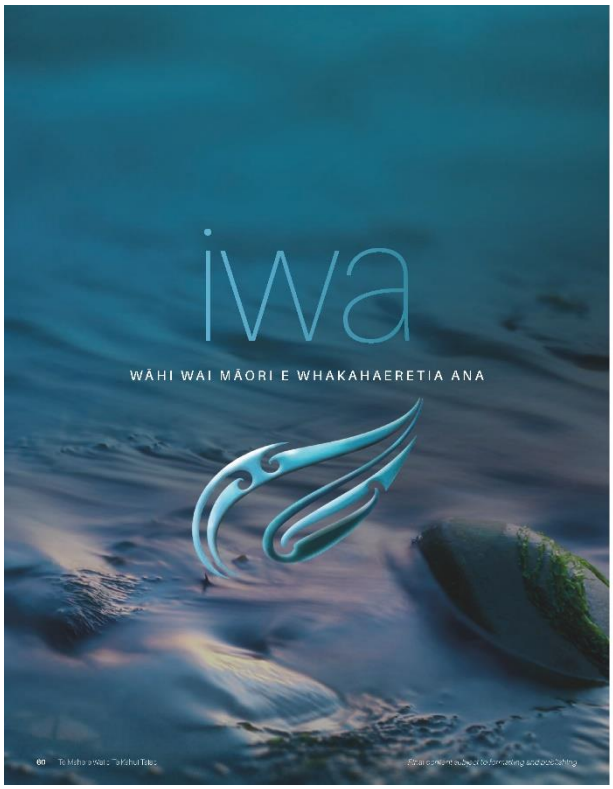
99. Greater Wellington Regional Council adopts a community whaitua/catchment restorative approach that punishes polluters and makes them directly answerable to the affected water body and its community. This could include the payment of damages to restore the affected area and its values. Any fines resulting from prosecution will be spent within the affected whaitua/catchment.

100. Greater Wellington Regional Council lobbies central government to remove the cap on fines so that they are able to be set at a level commensurate with the effect of the damage incurred.

8.21 Ngā mahi hautū o Te Pane Matua Taiao

Greater Wellington Regional Council leadership

101. Greater Wellington Regional Council adopts best management practice for managing their land that includes fencing waterways, retiring marginal land, addressing pine plantation forestry activities that affect water quality, and moving away from hard engineering options for flood management.



60 Te Mahere a Wai: Te Kāhui Tātaki

Final content subject to formatting and publishing

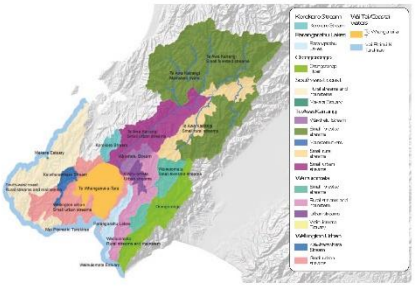
9 Wāhi Wai Māori e whakahaeretia ana

FRESHWATER MANAGEMENT UNITS

Te Kāhui Tātaki have identified **eight** Wāhi Wai Māori (Freshwater Management Units or FMUs) for Te Whanganui-a-Tara.[1d]

The purpose of these FMUs is all about breaking the catchments down into a scale that can be appropriately cared for and which also give effect to Te Mana o te Wai. The spatial areas are also useful for accounting purposes and are representative of monitoring sites relating to Māori freshwater values.

Wāhi Wai Māori developed by Te Kāhui Tātaki are shown in the map and aerial depicted below. The key whaitua/catchment areas include Te Awa Kairangi, Korokoro, Kaiwharawhara and Wellington urban streams, Southwest Coast, Wainuiomata, Orongorongo, Parangārehu Lakes, Te Whanganui-a-Tara and other Wai Tai (coastal areas).

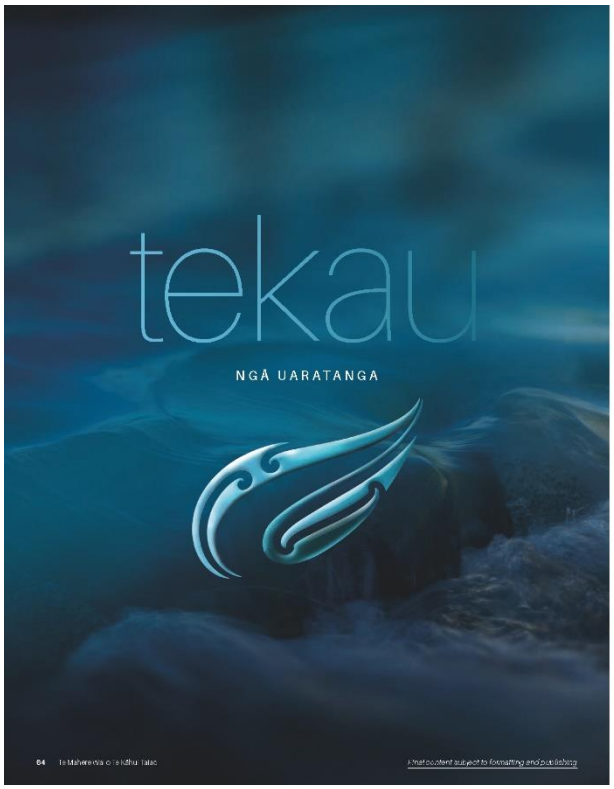


1d See clause 3.8 of the NPSFM 2020.

Each of these Wāhi Wai Māori also have a series of sub-catchments and tributaries within them. The decision to land on these FMUs was developed over a number of months and they reflect Te Kāhui Tātaki's aspirations about how best to give mana to each waterbody in the whaitua.

Key considerations included:

1. Depicting whole river systems and their connection to the sea. This moved away from an earlier iteration of spatial areas that literally "chopped off" the head of awa from their tails. Each of the Wāhi Wai Māori (FMUs) adopted a mahi a kai integrated whaitua (catchment) approach that connects te mātāpuna (headwaters), āliu wai he ke (small streams) to te kuta (moana (the sea). This grouping of waterbodies with the coast recognises the interconnectedness of the whole environment and the interactions between freshwater, land, waterbodies, ecosystems and receiving environments.
2. Restoring the mana of āliu wai he ke (small streams) by naming and mapping these "forgotten waterbodies" in each of the spatial areas.
3. Reflecting the significance of certain waterbodies by giving them their own management units. For example, Korokoro, Kaiwharawhara, Te Awa Kairangi, and the Parangārehu Lakes are all Ngā Taonga Nui a Kiwa (the treasured inheritance of Kiwa refers to those waterbodies of most importance to Mana Whenua identified in Schedule 8 of the PNRP) to lead accordingly have sufficient mana to be treated as their own entities.
4. Ensuring that receiving environments were captured within the Wāhi Wai Māori (FMUs). This was of critical importance to Mana Whenua as many of the iwi sites of significance are located within Te Whanganui-a-Tara (the Wellington Harbour), around the Cook Strait and South Coast.
5. Identifying "exemplar" individual whaitua/catchments like Kaiwharawhara which has an existing catchment-wide approach to monitoring and restoration in place, including Sanctuary to the Sea from Zealandia to the Kaiwharawhara Estuary. This presents an opportunity for Mana Whenua and GWRC to focus on specific outcomes that could include targeted restorative work and education initiatives that also recognise the connectivity with other spatial areas.
6. Prioritising special sites like the Parangārehu Lakes for immediate improvement.



Final content subject to formatting and publishing

10 Ngā Uaratanga

THE VALUES

Ngā Uaratanga (value/values) are the Mana Whenua values that Te Kāhui Taiao have identified in relation to nga awa, nga wai huna (concealed waters), and takutai moana (the sea) within Te Whanganui a-Tara. Ngā Uaratanga reflect the value and importance of freshwater to Mana Whenua and set standards to aspire to in the care and use of freshwater.

Ngā Uaratanga are the values for all the awa in Te Whanganui a-Tara and provide the framework for the Mana Whenua environmental outcomes, attributes and target attribute states.[17]

Te Kāhui Taiao have identified 27 Mana Whenua values for each of the eight FMUs. Some of these values were identified by Mana Whenua at hui held at Tekapōwhaiwhai Marae on 12 April 2021, at Te Tātau o te Pō Marae on 16 March 2021, at Te Wainui o Mate Marae on 18 March 2021 and at a Parangārehu Lakes workshop on 17 February 2021.

Ngā Uaratanga also contain a comprehensive list of values described by kaitiaki rōpū in the development of the PNRP. Mana Whenua have identified both the significant waterbodies within their tribal areas (Ngā Taonga Nui a Kiwa in Schedule B of the PNRP) and many sites of significance (in Schedule C) within waterbodies that they consider require additional protection. A complete list of uaratanga (value/values) are set out in the table below.

Uaratanga	Kōrero whakamārama	Origins
Ngā awa tipua	This is a description of the river system from te mātāpuna (the headwaters) to takutai moana (the sea). This describes the river as a whole, its spiritual and physical dimensions, and their unity and connection of Mana Whenua with it.	Ngā Taonga Nui a Kiwa (the treasured inheritance of Kiwa) refers to those waterbodies of most importance to Mana Whenua identified in Schedule B of the PNRP).
Wai ora	Is water utilised for healing. These are sacred places where rituals and ceremonies were practiced by Mana Whenua and included rituals and ceremonies.	Te Kāhui Taiao, Mana Whenua
Wai tapu	Are sacred places where rituals and ceremonies were practiced by Mana Whenua.	Te Kāhui Taiao, Mana Whenua
Te Mātāpuna (headwaters)	The headwaters are revered, protected, and restored as the ultimate sources of mauri/mouri of freshwater.	Te Kāhui Taiao, Mana Whenua

17 See clauses 3.7 and 3.9 of the NPSFM 2020.

Uaratanga	Kōrero whakamārama	Origins
Āku Waiheke (small streams), ngā wai huna (concealed waters and aquifers)	Small water bodies and aquifers are recognised for their individual and accumulated values including habitat and water volume. Waiheke are the small streams that are disproportionately significant, especially in terms of habitat, cultural use, and connection with the community because of their good water quality and natural character. Their collective volume is considerable at a catchment scale.	Te Kāhui Taiao, Mana Whenua
Tiaki whenua	Means to take care of the land (used to describe the plantation forestry practices in many of the headwaters).	Te Kahui Taiao, Mana Whenua
Āhua	Āhua is the natural character of an area, and may include exceptional natural, iconic, or aesthetic features. Matters contributing to the natural form and character are biological, visual, and physical characteristics valued by a community. Āhua is a matter of national importance in the Resource Management Act.	Te Kahui Taiao, Mana Whenua
Ngā Mahi a ngā Tūpuna	The interaction of Mana Whenua with fresh and coastal waters for Mana Whenua purposes. This includes the cultural and spiritual relationships with water expressed through Mana Whenua practices, recreation, and the harvest of natural materials for Mana Whenua purposes. This includes ancestral connections to the land passed down by tupuna and whakapapa (genealogy).	Nga Taonga Nui a Kiwa in the PNRP
Te nui o te Wai	This addresses water quantity and means the abundance of water.	Te Kāhui Taiao, Mana Whenua
Te Mana o te Tangata	The Mana o te Tangata is the relationship between the mana of the wai and the mana of the tangata, (whānau) as Mana Whenua and mana whakahaere of their freshwater taonga.	Ngā Taonga Nui a Kiwa in the PNRP
Te Mana Whakahaere o ngā awa ki uta ki tai	Holistic river management. Addresses existing flood management activities.	Te Kāhui Taiao
Wāhi tapu	These are sacred places that are revered by Mana Whenua for their traditional, spiritual, ritual, and mythological values.	See Schedule C sites of significance in the PNRP
Wāhi tupuna	These are significant ancestral places.	See Schedule C sites of significance in the PNRP
Wāhi maumahara	These are memorial places.	See Schedule C sites of significance in the PNRP
Wai Māori	Water used for drinking purposes.	Schedule M1 in the PNRP

Uaratanga	Kōrero whakamārama	Origins
Te Mahi Kai/ mahinga kai	Mahinga kai is the customary gathering of food and natural materials, the food, and resources themselves and the places where those resources are gathered. Te Mahi Kai is the utilisation of the resources of this awa for spiritual sustenance is its highest value.	Ngā Taonga Nui a Kiwa in the PNRP
Wāhi Whakarite	Sites and places where very important and often restricted activities have been undertaken by Māori for many centuries. This is a place of ritual related especially to mahinga kai activities that require a specific environment to function. These practices differ from day to day activities like Ngā Mahi a nga Tupuna.	Ngā Taonga Nui a Kiwa in the PNRP
Taonga species	Are native birds, plants and animals of special cultural significance and importance to Māori.	Te Kāhui Taiao, Mana Whenua
Contact recreation and Māori customary use	This includes the interaction of Māori with fresh and coastal waters for cultural purposes. It includes a spiritual relationship with water expressed through Māori practices, recreation, and harvest of natural materials.[18] Contact recreation also supports people being able to connect with the water through a range of activities such as swimming, waka, boating, fishing, mahinga kai, and water skiing, in a range of different flows or levels.	Te Kāhui Taiao, Mana Whenua
Repo	Significant wetlands.	Schedule A3 of the PNRP
Te mahi mātaitai	Fishing and diving.	Te Kāhui Taiao, Mana Whenua
Takutai Moana	The sea.	Te Kāhui Taiao, Mana Whenua
Kaimoana	The customary gathering of food and natural materials, as well as the food and resources themselves, and the places where those resources are gathered.	See Schedule C sites of significance in the PNRP
Wāhi mahara	Wāhi mahara are places of learning and where local knowledge and histories are etched into the landscape. These are essentially a place that has been central to intergenerational knowledge transmission of our tupuna and could be used as such again in the future.	Ngā Taonga Nui a Kiwa in the PNRP
Wāhi ahurea	These are traditional places and have special value.	Te Kāhui Taiao
Wāhi whakahaumanu	Place of restoration and healing.	See Schedule C sites of significance in the PNRP
Tauranga waka	Canoe landings, landing places.	See Schedule C sites of significance in the PNRP

18 Description of Māori values in the PNRP

11 Ngā huanga

Environmental outcomes

Ngā huanga are the desired outcomes that Mana Whenua have identified for each of their uaratanga/values that apply to a Wāhi Wai Māori (FMU), or part of an FMU. Ngā huanga are of critical importance in the PNRP process and will eventually form objectives in the regional plan.[19]

Te Kāhui Talao have identified their own set of huanga (outcomes) for each of their uaratanga/values in Te Whanganui-a-Tara that apply to the eight separate FMUs. Ngā huanga describe the environmental outcome sought for each value in a way that can be assessed by GWRC. Ngā huanga, when achieved, will fulfil the moemoeā (long-term vision) of Te Kāhui Talao.

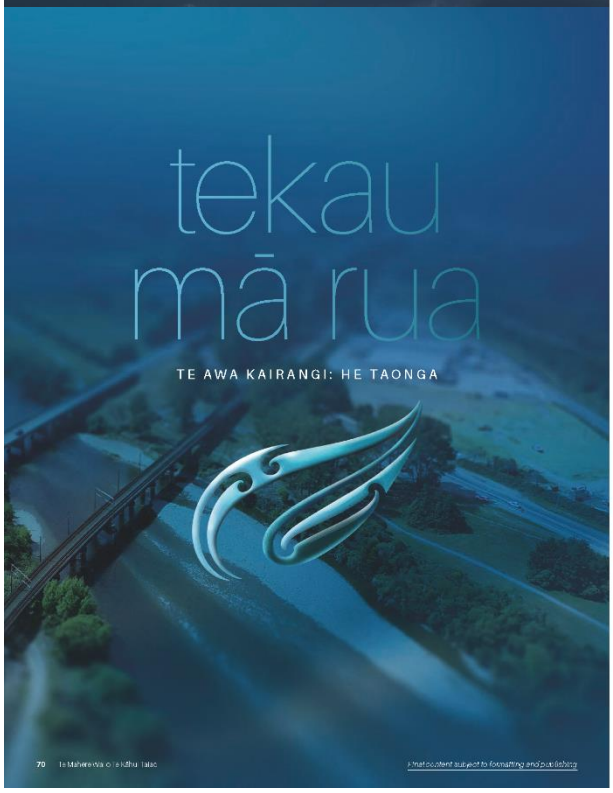
Ngā huanga (outcomes) also set out a timeframe for maintaining or improving outcomes as set out in Hei Wairnō ngā Whakatupuranga that include:

a. **Short term**: 0 – 10 years, Pēpā (baby/babies) me ngā Tamariki (child/children)
b. **Medium term**: 10 - 30 years, Rangatahi (youth) me ngā Mātua/Pakeke (adults)
c. **Long term**: 30+ years, Pakeke (adults) me ngā Kaumātua (elders)

Te Kāhui Talao huanga apply to Mana Whenua values within the following FMU spatial areas.

Spatial area/FMU	Waterbodies/sub-catchment areas
Te Awa Kairangi	• Small, forested streams include tributaries for Te Awa Kairangi, Whakatīkei, Akatārawa, Pākuratahi and Mangaroa Awa. • Te Awa Kairangi main stem rivers including Whakatīkei, Akatārawa, Pākuratahi and Mangaroa Awa. • Te Awa Kairangi small, urban streams including Hutt Valley Western, Hills, Hutt Valley West Urban, Te Awa Kairangi lower mainstem, Hutt River Valley floor and the Waiwhetū Stream.
Korokoro Stream	The tributaries and main stem of Korokoro Stream (tbd).
Wellington urban streams	These Wellington urban streams include Kaiwharawhara Stream, Karori Stream, Ōwhiro Stream and all East Harbour Streams.
Southwest coast	Southwest coast streams include the Makara Stream, tributaries and coastal and estuarine areas.
Ōrongorongo River	The tributaries and main stem of Ōrongorongo River (tbd).
Wainuiomata River	This includes Wainuiomata tributaries, small-forested streams, the main stem, and estuarine areas.
The Parangārehu Lakes	This catchment area includes Collin's Stream, Lake Kōhangatera and Lake Kōhangapiripiri and all their tributaries.
Wai Tai	Wai Tai is the coastal area that includes Te Whanganui-a-Tara (the Wellington Harbour), Te Moana o Raukawa (Cook Strait), and Huarā Taka (Wellington South Coast).

19 See clauses 3.7 and 3.8 of the NPSFM 2020.



12 Te Awa Kairangi: He Taonga

THE HUTT RIVER: A CULTURAL TREASURE

12.1 Te whakamārama I Te Awa Kairangi

Describing Te Awa Kairangi

Wai kautū - wadeable - state of uncertainty and risk

Te Awa Kairangi is the major river system in Te Whanganui-a-Tara and is made up of many unique parts. From the headwaters in the Tararua ranges, water flows through small, forested streams, before travelling through a number of main stem rivers into the urban environment, and its smaller streams, and then out into Te Whanganui-a-Tara (Wellington Harbour).

Te Awa Kairangi is identified by Mana Whenua as Wai Kautū on the Orange Wai assessment framework. This reflects the considerable uncertainty Mana Whenua have for the state of the awa. Water takes, discharges and modifications to natural flow have had a significant effect on this awa and while there is excellent water quality in the headwaters, the awa is vulnerable throughout it's journey mai Uta ki tai (from the inland to the sea). The main stem of Te Awa Kairangi has been subject to hard flood engineering works over the years. These works are ongoing and continue to have significant impacts on mahinga kai species. Mana Whenua sites of significance and the mauri of the rivers and their tributaries.

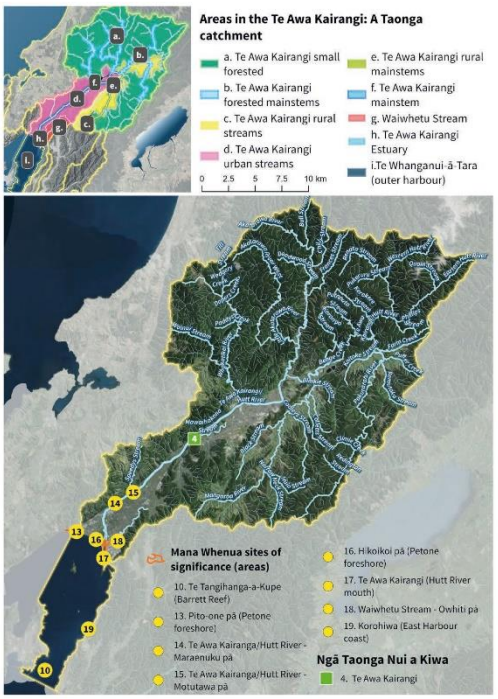
Despite these challenges Mana Whenua continue to value Te Awa Kairangi for it's manawaroa (resilience) and have a determination to achieve the restoration of this most important taonga.

Te Awa Kairangi is a taonga and awa tupuna (treasured ancestral river) for Ngāti Toa Rangatira and Taranaki Whānui. Te Awa Kairangi is the largest river in the Te Whanganui-a-Tara Whaitua and once sustained a large Mana Whenua population providing access to forest birds, fish, rich gardening soils and numerous wild plant foods. Despite excessive land reclamations, modification and environmental damage, Te Awa Kairangi continues to support a variety of endemic wildlife, including endangered species.

The river is of great importance as it is the largest source of freshwater in the region. Upstream of the Kaitoke Weir, the river is recognised for its outstanding indigenous ecosystem value, with high macroinvertebrate health, indigenous fish diversity and threatened taonga fish species including banded kōkopu, bluegill bully, giant bully, giant kōkopu, koaro, piharau, longfin tuna, redfin bully and shortfin tuna.

Like all awa in the Te Whanganui-a-Tara Whaitua, Te Awa Kairangi is a place for wānanga. Of particular note are the pā sites, the repō/wetlands and their uses for weaving dyes and building materials.

There are many āki, waiheke (small streams) in the whaitua with unique values and mana that should be recognised and protected as well. These include Speedy's Stream, Mangaroa awa and wetlands, Pakuratahi and Akatārawa river systems, Stokes Valley Stream, Korokīpo Stream, Hutaputa Stream, Waiwhetū and Moonshine Stream.



12.2 Te whakamārama i Waiwhetū

Describing Waiwhetū

Wai Kino - Contaminated by human waste

Waiwhetū Awa is the most polluted waterway in Te Whanganui-a-Tara. It is located at the lower end of the Te Awa Kairangi valley and river mouth. The stream is assessed as Wai Kino on the Te Oranga Wai Mana Whenua assessment framework. This is due to the presence of human waste (E. coli) which poses a health risk and means that contact with the water should be avoided.

While the lower reach of the Waiwhetū Stream is heavily channelised and polluted the mid range of the awa still retains ahuru (natural character) and the awa remains an icon for Mana Whenua. However, although there has been considerable investment in its restoration by the local community, and councils have spent tens of millions of dollars in recent years to improve water quality, there is still work to be done before it is safe to eat eels or watercress.

The stream is identified in regulation as Ngā Taonga Nui a Kiwa (the treasured inheritance of Kiwa) refers to those waterbodies of most importance to Mana Whenua identified in Schedule B of the PNRP for Ngāti Toa Rangatira and Taranaki Whānui. It has sustained iwi over many centuries, with Waiwhetū Pā, and Owhiti Pā being two important pā on the awa. Te Awa Kairangi ngā ngutu awa (the river mouth), the Waiwhetu Stream and the Waiwhetu Estuary were regarded as important sources of mahinga kai and freshwater for Mana Whenua.

The river mouth is recognised as a significant natural wetland, and is characterised by significant indigenous biodiversity value, providing habitat for threatened native fish and birds.

12.3 Ngā whainga mo Te Awa Kairangi

Objectives for Te Awa Kairangi

These are a complete list of Te Kāhui Taiao's ngā huanga for Te Awa Kairangi.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long-term.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Ngā awa tipua	E mohio mutia ana te pepeha o ngā iwi o Whanganui mō te ratou awa. 'Ko au te awa, ko te awa ko au' (I am the river, and the river is me)." The sentiments encapsulated in this treasured saying belonging to the iwi of Whanganui are deeply felt by all iwi, in relation to their waterways. The awa (rivers) of the district are recognised and considered as whānau (family group) and taonga by the people of Te Whanganui-a-Tara. The awa has its own identity, unique personality, and mauri/mouri. These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Wai ora	The water is wai māua o tuapapa (or virgin water), that is of pristine quality, and the river margins are safe and accessible for Mana Whenua to practice traditional rituals and ceremonies like: 1. Iohi (baptism) 2. Karakia (prayer) 3. Whakarapu (placing of rāhui) 4. Whakarewa (removal of rāhui), and 5. Taonga tuku iho (gifting of knowledge and resources for future generations). The water quantity and flow of the streams allow for hapuā/iwi to practice cultural immersion throughout the year. Outside of these uses, access to the awa is managed to protect the cultural safety of the wai.	Short term
Te Mātāpuna (headwaters)	The origins of Te Awa Kairangi are high in the Tararua Range and are not used for recreational or commercial fishing purposes, and te mātāpuna (headwaters): 1. Are clean and serene, 2. Are a source of mauri/mouri and pristine waters, 3. Have an abundance of native vegetation and native biodiversity, and 4. Ngā rongoā like tīoki, makomako, mamaku, kawakawa, and rangiora are present.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	Te mātāpuna (headwaters) are places of great beauty and Mana Whenua rights as kaitiaki are in place so that iwi and hapū: 1. Are empowered and resourced to make decisions around the use, monitoring, restoration, and protection of te mātāpuna (headwaters). 2. Can access natural resources for customary purposes, and 3. Can develop measures like rāhui to protect against exploitation like fishing and four wheel drive activity that is enforceable.	
Āku Waiheke, ngā wai huna (concealed waters and aquifers)	The small streams like Korimpo Stream, the Putaputa Stream, Moonshine Stream, Speedy's Stream and Stokes Valley Stream, and all other tributaries including ngā wai huna (concealed waters) and aquifers is enhanced by: 1. Naming piped or unrecognised streams. 2. All āku waiheke (small streams) and ngā wai huna (concealed waters) have traditional names are used. 3. All āku waiheke (smalls streams) and ngā wai huna (concealed waters) which are not named, or have anglicised names, are given traditional Māori names under the guidance of Mana Whenua.[20] 4. These names are formalised and shared with the local community and Mana Whenua through education and signage. 5. Monitoring for water quality/quantity and for the presence of indigenous biodiversity and ecological function. Streams that are currently piped are daylighted as far as practicable and are able to take their natural form and path. Where streams cannot be daylighted their ecological values are recognised. Native fish have access to move freely up and down the entire length of the catchment.	Short term
Tiaki whenua	The land around small streams is managed sensitively so that: 1. The headwaters are in native vegetation 2. Mana Whenua are involved in the decision making around activities that may have an adverse impact on these streams, and 3. Large areas of land are not left cleared of vegetation at the same time.	Short term

20 It is noted that non traditional names are used within the document for some places as the process of re naming hasn't occurred yet.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Āhua	The main stem awa (rivers) have a natural variation of flows, can meander and have natural beauty. The water is clear with good clarity so that the bed of the awa is easily visible. The awa and its corridor smell of clean water, native forest, and the forest floor. The voice and personality of the awa can be heard and seen. The presence of native flora and fauna can be observed and heard in the water spaces. The voice and personality of the awa reflects the natural variations in flow, the movement of bed material, and bird and insect life within the river corridor. The awa and the area immediately surrounding it feels serene and uplifting both in and out of the water. The natural flow of the water down the awa is not constrained by instream structures. The awa is able to express its natural form and has a natural pattern of pools, runs and riffles. The full extent of the banks of the awa and the river corridor is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna.	Long term
Ngā Mahi a ngā Tūpuna	We show respect for the awa and our tupuna by ensuring that all waterbodies are clean and healthy.	Medium term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te nui o te Wai	There is sufficient water quantity and flow levels in the awa so that: 1. There is connectivity between te mātāpuna (headwaters) and āku waiheke (small streams) through to natural mouths (the sea). 2. The water levels of all awa have sufficient depth all year round to support the movement of native fish species up and down the river system. 3. Mana Whenua can practice cultural immersion and other traditional and modern cultural uses. 4. Rangatahi (youth) can swim from November through to April. 5. All life stages of taonga species are catered for, including drift-feeding fish. 6. The natural rhythms and hydrology of the river is supported - the awa can be calm, but she is also allowed to be riri (angry). 7. The flow is sufficient so that it keeps the river mouth open. 8. There is connectivity between the awa and its banks to support spawning fish. 9. Those areas valued for tauranga waka are deep enough for waka to navigate. 10. The bed of the awa does not dry up during summer months. 11. It supports an abundant and diverse range of aquatic life including microbes, invertebrates, indigenous fish species, native birds and indigenous plants. 12. Whānau (family group) can use water for economic purposes without causing the level of water in the awa to drop.	Medium term
Te Mana o te Tangata	Mana Whenua exercise their rights as kaitiaki and mana whakahaere is in place so that iwi hapū and marae: 1. Have access to and can make decisions about how the awa will be managed. 2. Are contributing to the community's understanding of Te ao Māori, Mana Whenua values and historical relationship with the awa. 3. Can use mātauranga Māori, Mana Whenua ecological monitoring, and observational data to inform decision-making around the awa. 4. Practice rurunga (a word meaning guest – express duties of a host), the sharing of management of the awa with the wider community and existing care groups. 5. Can exercise whakarapu and whakanoa.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mana Whakahaere o ngā awa ki uta ki tai	A partnered management approach is adopted so that Mana Whenua work with regional council to develop, apply, monitor, and enforce holistic river management practices. The flood hazard risk to communities near Te Awa Kairangi is managed so that the river is able to exhibit its natural form and character rather than being constrained and that river management includes opportunities for positive design such as recreating ngā ūranga. The existing global flood protection consent is reviewed so that it achieves these outcomes.	Short term
Wāhi tapu	There are significant wahi tapu sites adjoining Te Awa Kairangi including kainga and pa at Haukaretu (Maoribank), Whakataka Pa (which was across the bank from what is now Te Marua), Mawaihakona (Wallaceville), Whirinaki, Motutawa Pā (Avalon), Maraenuku Pā (Boulcott), Paetutu Pā and the mouth of the river, Ngutu ihe pā, Hikoikoi Pā to the west and the Waiwhetū Pā (Owhiti) to the east. Te Ngohengohe and Pūhara-keke-tapu are significant places of battle along the Waiwhetū Stream. Wahi tapu sites support the healthy wairua of the tangata/people because: 1. Whānau (family group) are able to access these sites and manage them according to tikanga. 2. Regional Council delegates its power under section 33 of the RMA to Mana Whenua to make decisions around freshwater management for wahi tapu sites that includes (but is not limited to) monitoring and restoration. 3. Whanau (family group) can practice cultural rituals and ceremonies, such as tohi (baptism), karakia (prayer), waerea (protective incantation), whakatapu and whakanoa (placing and removal of rāhui), and tuku taonga (gifting of knowledge and resources to future generations). 4. The wai is clean and safe for use. 5. Ngā ūranga (landing/arrival places) are established along the river corridor and these are accessible by Mana Whenua, including by waka.	Short term
Wai Māori	Te Awa Kairangi is a key source of community drinking water. The water is suitable for drinking and available within flow limits for that purpose. [21]	Medium term
Te Mahi Kai/ mahinga kai	The whole catchment supports the entire life cycle of mahinga kai species. Mahinga kai species are safe to harvest and eat.	Medium term

21 See Schedule M1 Surface water community water supply abstraction point of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	Mahinga kai sites include kainga and pa at Haukaretu (Maoribank), Whakataka Pa, Mawaihakona, Whirinaki, Motutawa Pa, Maraenuku Pa, Paetutu Pa and the mouth of the river, Ngutu ihe Pa, Hikoikoi Pa, Waiwhetū Pā (Owhiti), Te Ngohengohe and Pūhara-keke-tapu. At mahinga kai sites these fish and macroinvertebrate species are present: longfin tuna, shortfin tuna, īnanga, piharau (lamprey), pātiki (flounder), kanae (mullet), ngaore (smelt), kōura, and kākahi. At mahinga kai sites these plant species are present: harakeke, raupo, puha, kawakawa, fernroot, and plants for weaving and healing. Other mahinga kai like stones used for tool making, and mud for weaving dyes are present. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long term harvest including for manuhiri and to exercise manaakitanga.[22]	
	Mana Whenua make decisions around the harvest of mahinga kai and can: 1. Access mahinga kai sites and species. 2. Transfer knowledge about preparation, storage, and cooking of kai through wānanga and other means of communication. 3. Develop measures like rāhui to protect against exploitation and overfishing that are able to be enforced. 4. Practice tikanga and other preferred methods of harvest safely and at the most appropriate time of the year. 5. Exercise customary practices to the extent desired.	Short term
Wāhi Whakarite	The water is clean and safe to interact with, and the river margins are safe and there is space for whānau (family group) to: 1. Access traditional pā sites. 2. Access traditional wahi mahara (places of learning) to share information about local knowledge and histories of the landscape. 3. Practice rituals like planting Puanga/Matariki. 4. Hold wānanga to continue indigenous practices like living by the maramataka (lunar calendar). 5. Collect water to use in mauri/mouri-enhancing ways including waitohi and for mate (rituals relating to death and cleansing). 6. Share intergenerational knowledge and resources with whānau (family group) and manuhiri.	Short term

22 See Schedule C4 and Map 6 of the PNRP. The Waiwhetū Estuary is a site of significant indigenous biodiversity values in the coastal marine environment (see Schedule F4 and Map 19 of the PNRP).

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Taonga species	The water conditions, level, and habitat in the awa, and its corridor support the presence, abundance, survival, and recovery of: 1. Benthic macroinvertebrates/freshwater bugs including kōura, kākahi, 2. At-risk and threatened indigenous fish species like banded kōkopu, giant kōkopu, dwarf galaxias, kōaro, bluegill bully, giant bully, Cran's bully, redfin bully, piharau (lamprey), longfin tuna, and shortfin tuna.[23] 3. Native birds, like kereru and kaka. The lower reaches provide healthy īnanga spawning habitat.	Medium term
Contact recreation and Māori customary use for identified sites	The water is clean and cool all year round and there are enough deep pools for a range of interactions to take place, so that: 1. People can immerse themselves in the water (swimming, bathing, being in the water to replenish mauri/mouri) without getting sick and/or developing skin rashes. 2. Rangatahi (youth) can do bombs into the waterholes and can safely mahi parekareka i te wai (play in the water). 3. The corridor and banks are easily accessible and shaded by native vegetation that allows elderly whanau (family group) to mahi pārekareka (relaxation and recreation) ki te wai, relax alongside the awa. 4. The water levels in traditional swimming places should not drop below hip level. This includes (but is not limited to) the traditional swimming places at Double Bridges, Kaitoke, Maoribank, Taitā Rock, Pākuratahi Forks and both the Akatārawa and Te Awa o Pākuratahi.[24]	Medium term
Swimming	The water is suitable for primary contact throughout the catchment.	Medium term

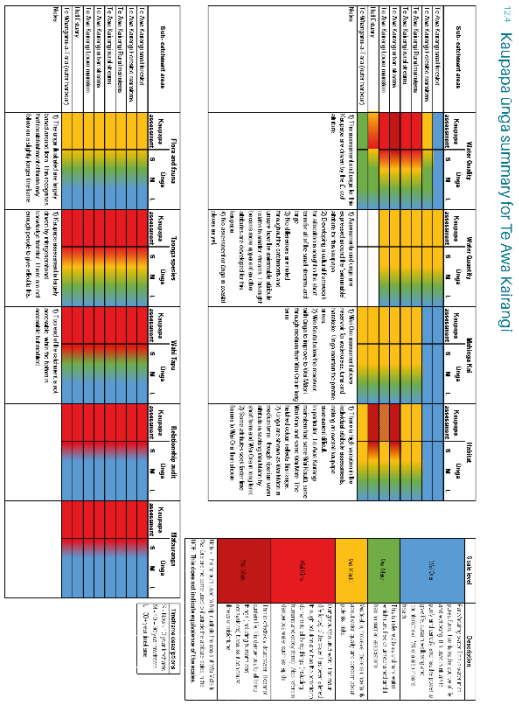
23 See Schedule F1 of the Proposed Natural Resources Plan.

24 The Pākuratahi and Akatārawa Rivers are significant contact recreation freshwater bodies in Schedule H1 of the PNRP and shown on Map 20.

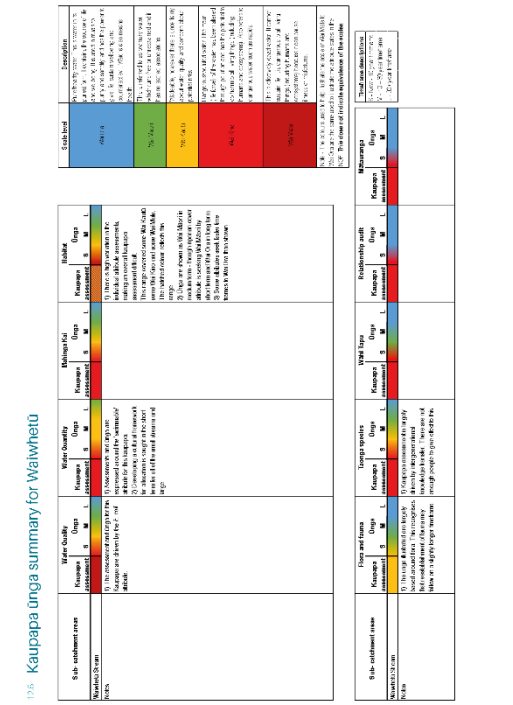
Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Repo	The water quality and health of wetlands, which include te ngutu awa o Te Awa Kairangi (the river mouth), the Maymorn Wetlands, Mount Cone Turf Bog[25] and Blue Mountain Bush Swamp Forest, supports abundant and diverse biota which includes microbes, invertebrates, native macrophytes (raupo), and native manu/birds like cormorants, ducks, teal, tōrea (oyster catchers), sand pipers, curlew, and red-legged waders.[26] At repo (wetland) sites these fish species are present: banded kōkopu, giant kōkopu, longfin and shortfin tuna, kōaro, inanga, redfin bully, bluefin bully and piharau (lamprey). Fish species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long-term harvest including for manuhiri and to exercise manaakitanga. The wetland margins are restored and given protection so that they are once again a functioning part of the main wetland.	Medium term
Te mahi mātaitai	People are able to practice te mahi mataitai and te mahi hi ika particularly at coastal sites like Te Awa Kairangi river mouth/nga ngutu awa. The awa and estuarine area supports: 1. Fishing of species allowed to be caught and eaten like trout, kahawai, shortfin tuna, mullet, kākahi, and kōura. 2. Safe fishing conditions with good water clarity, safe access and healthy algal growth.	Medium term
Takutai Moana	The Te Awa Kairangi estuary is prioritised for protection and restoration so that it is a healthy functioning estuary.	Long term

25 See Schedule A3 wetlands with outstanding indigenous biodiversity values: Maymorn Wetlands and Mount Cone Turf Bog and Maps 1 and 18a in the PNRP.

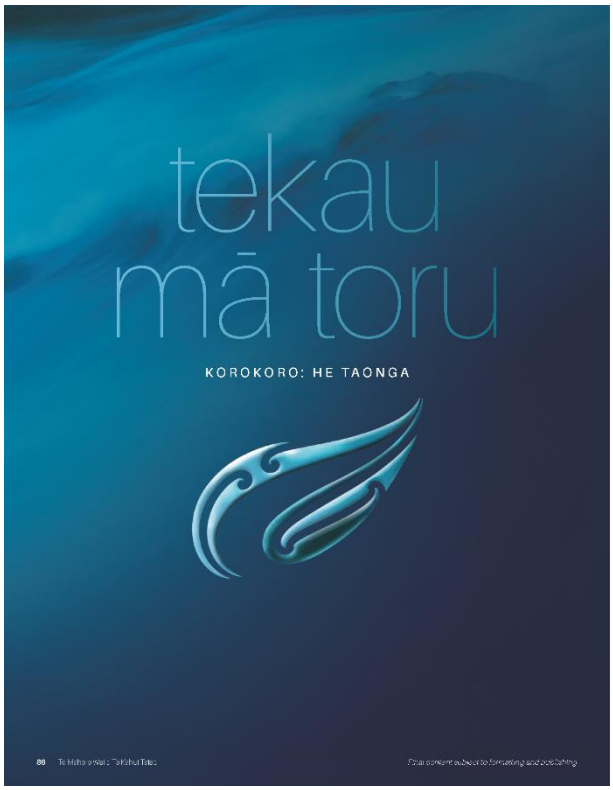
26 See Schedules F1 and F4 in the PNRP.



12.4 Kaupapa ūnga summary for Te Awa Kairangi



13.5 Kaupapa ūnga summary for Waiwhetū



13 Korokoro: He Taonga

TE KOROKORO STREAM: A CULTURAL TREASURE

13.1 Te whakamārama i Korokoro

Describing Korokoro

Wai Kautū - wadeable - state of uncertainty and risk

Mana Whenua are very concerned about Te Korokoro o Te Mana and they regard it overall as being Wai Kautū, or only having the confidence to wade in it, based on the Te Oranga Wai Mana Whenua assessment. It would not support full immersion.

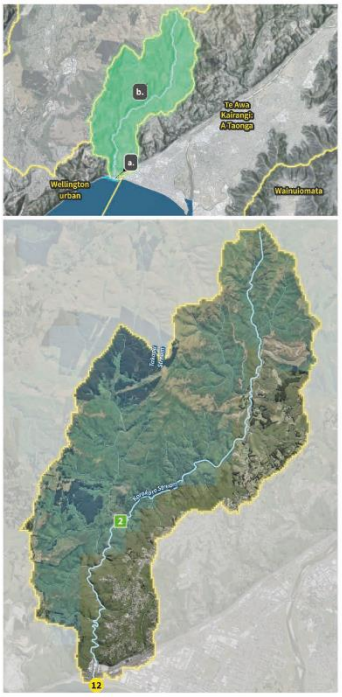
This is largely due to a lack of formal monitoring and information about water quantity and quality in the catchment. Anecdotal evidence suggests that the awa is degrading with invasive plant species choking out mahinga kai species and prolonged sedimentation plumes from plantation pine planting and other forestry activities. Expected pine harvest in the headwaters is considered a significant threat to the stream and its receiving environment. It is recommended that existing pines are not harvested in this catchment.

Despite this, Te Korokoro o Te Mana retains many important values for Māori and Mana Whenua hold an aspiration for the entire length of the waterbody to be restored to its former pristine state. To Korokoro o Te Mana is a Taonga iwi Taranaki Whānui and it is also a site of significance.

Korokoro Stream is recognised and protected as an exemplar catchment, commensurate with its cultural status as Te Korokoro o Te Ika a Maui (the throat of the fish of Maui). This is reflected in the gurgling sounds made by the stream. Te Matapuna of the Korokoro Stream are still pristine and have provided Taranaki Whenua with a vital supply of high quality drinking water for the Pito-one Pā for many generations. The stream is of exceptional value to iwi due to the abundant spiritual sustenance it provides. Whānau (family group), hapū and iwi carry out rituals, collect rongoa, and continue to share stories of its healing practices and teachings. It is also tohu tupuna for the hapū of Taranaki Whānui and Te Atiawa as a vital food and water supply.

The mouth of the Korokoro Stream is an important source of mahinga kai, particularly renown for whitebait, longfin tuna and shortfin tuna. The Pito-one Pā / te Tatauroa te Pō on the Petone foreshore is a significant wāhi āhurea (historic) site positioned near the mouth of Te Korokoro o Te Mana.

It is envisaged that the new Te Ara Tupua shared pedestrian and cycle path that links Wellington and Lower Hutt will raise the profile of the stream and give it a stronger connection with the wider community. Mana Whenua consider Te Ara Tupua an important opportunity to focus efforts on stream restoration as part of this development.



Areas in the Korokoro: A Taonga catchment

- a. Korokoro Estuarry
- b. Korokoro Stream

Mana Whenua sites of significance

- 12. Te Korokoro o Te Mana (Korokoro Stream mouth)

Ngā Taonga Nui a Kiwa

- 2. Te Korokoro o Te Manu

Te Korokoro o Te Manu

0 0.5 1 1.5 2 km

132 Ngā whainga mō Korokoro

Objectives for Korokoro

These are a complete list of Te Kāhui Taiao's ngā huanga (outcomes) for the Korokoro Stream.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long-term.

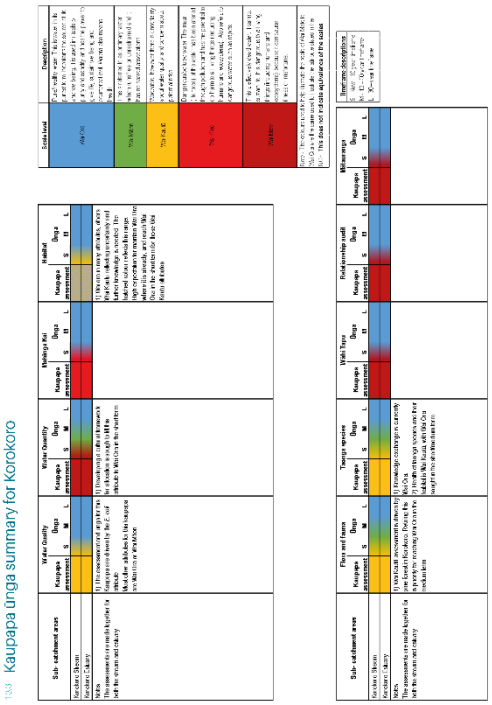
Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Ngā awa tīpua	The awa is recognised and considered as whānau (family group) and taonga by the people of Te Whanganui-a-Tara. The awa has its own identity, unique personality, and mauri/mouri. These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Te Matapuna (headwaters)	The waters of te matapuna (headwaters) are pristine and are not to be used for recreational or commercial fishing purposes. Mana Whenua have access to te mātāpuna and their rights as kaitiaki are in place so that they can access natural resources for customary purposes, and can make decisions around the use, restoration, monitoring and protection of te matapuna (headwaters) including through the use of whakatapu (placing of rāhui) and whakarāhui (removal of rāhui).	Short term
Āku Waiheke (small streams) and ngā wai huna (concealed waters)	The small streams like Speedy's Stream, Stokes Valley Stream, and all other tributaries including ngā wai huna (concealed waters) and aquifers is enhanced by: 1. Naming piped or unrecognised streams. 2. Ata āku waiheke (small streams) and ngā wai huna (concealed waters) traditional names are used. 3. Ata āku waiheke (small streams) and ngā wai huna (concealed waters) which are not named, or have anglicised names, are given traditional Māori names under the guidance of Mana Whenua. 4. These names are formalised and shared with the local community and Mana Whenua through education and signage. 5. Monitoring for water quality/quantity and for the presence of indigenous biodiversity. Streams that are currently piped are daylighted as far as practicable and are able to take their natural form and path. Where streams cannot be daylighted their ecological values are recognised. Native fish have access to move freely up and down the entire length of the catchment.	Short term

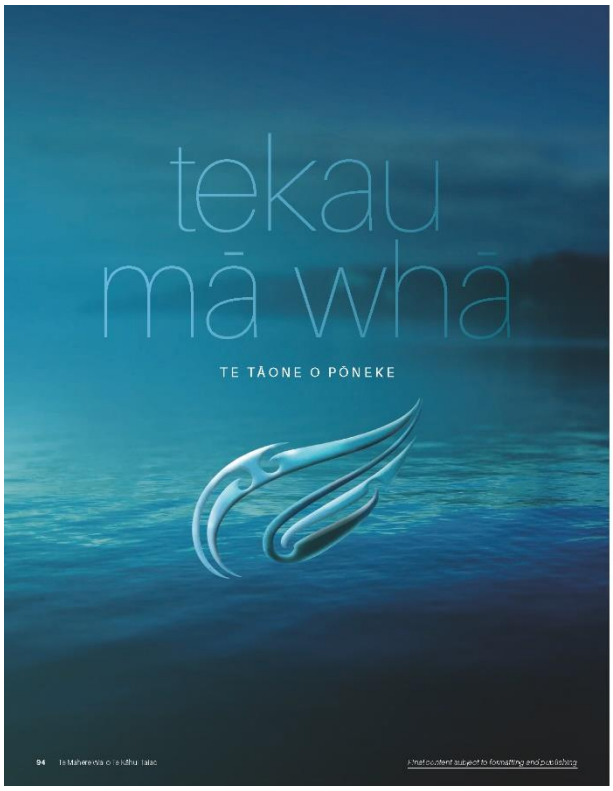
Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Āhua	The awa has a natural variation of flows. The stream is able to meander and has natural beauty. The water is clear with good clarity so that the bed of the awa is easily visible. The awa and its corridor smell of clean water, native forest and the forest floor. The voice of the awa can be heard. The presence of native flora and fauna can be observed and heard in the water spaces. The voice of the awa reflects the natural variations in flow, the movement of bed material, and bird and insect life within the river corridor. The awa and the area immediately surrounding it is a place of beauty and it feels serene and uplifting both in and out of the water. The natural flow of the water down the awa is not constrained by instream structures. The awa is able to express its natural form and has a natural pattern of pools, runs and riffles. The full extent of the banks of the awa and the river corridor is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna.	Long term
Ngā Mahi a ngā Tūpuna	We show respect for the awa and our tupuna by ensuring that all waterbodies are clean and healthy. The river corridor is sufficiently shaded by vegetation so that kaumātua (elders) and whānau can sit on its banks and receive spiritual sustenance from mahi pārekareka (relaxation and recreation). It is wai (being beside the awa).	Short term
Te nui o te Wai	There is sufficient water quantity and flow levels in the awa so that: 1. There is connectivity between te mātāpuna (the river source) and āku waiheke (small streams) through to tākutai moana (the sea). 2. The water levels of all awa have sufficient depth all year round to support the movement of native fish species up and down the river system. 3. All life stages of taonga species are catered for, including drift feeding fish. 4. The natural rhythms and hydrology are supported. 5. There is connectivity between the awa and its banks to support spawning fish. 6. The bed of the awa does not dry up during summer months. 7. It supports an abundant and diverse range of aquatic life including microbes, invertebrates, indigenous fish species, native birds, and indigenous plants.	Medium term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mana o te Tangata	Mana Whenua exercise their rights as kaitiaki and mana whakahaere is in place so that iwi, hapū and marae: 1. Have access to and can make decisions about how the awa will be managed. 2. Are contributing to the community's understanding of Te ao Māori, Mana Whenua values and historical relationship with the awa. 3. Can use matauranga Māori, Mana Whenua ecological monitoring, and observational data to inform decision making around the awa. 4. Practice manaaki tuirangi, the sharing of management of the awa with the wider community and existing care groups. 5. Can exercise whakarapu (making rapu) and whakaroa (making free from tapu, or noa).	Short term
Te Mahi Kai/ Mahinga kai	The whole catchment supports the entire life cycle of mahinga kai species. Mahinga kai species are safe to harvest and eat.	Medium term
	At mahinga kai sites like Te Korokoro o Te Mana (the mouth of the Korokoro Stream) these fish and macroinvertebrates are present: longfin tuna, shortfin tuna, īnanga, kōura, and kākahi. At mahinga kai sites plant species like harakeke are present. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest and eat or use, and are plentiful enough for long-term harvest including for manuhiri and to exercise manaakitanga.	Medium term
	Mana Whenua are able to make decisions around the harvest of mahinga kai like harakeke and can: 1. Access mahinga kai sites and species. 2. Transfer knowledge about preparation, storage and cooking of kai through wānanga and other means of communication. 3. Develop measures like rāhui to protect against exploitation and overfishing that are able to be enforced. 4. Practice tikanga and other preferred methods of harvest safely and at the most appropriate time of the year. 5. Exercise customary practice to the extent desired.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Wāhi Whakarite	The awa and the area surrounding Te Tatau o te Po Marae is clean and safe to interact with and there is space for whanau (family group) to: 1. Access traditional pā sites. 2. Access traditional wāhi mahara (places of learning) to share information about local knowledge and histories of the landscape. 3. Practice rituals like planting Puanga/Matariki. 4. Hold wananga to continue practices like living by the maramataka. 5. Collect water for use in mauri/mouri-enhancing ways including waiōhī and mate, and 6. Share inter-generational knowledge and resources with whānau (family group) and manuhiri. A pedestrian access from Ihi Ioniana To Puni Reserve across State Highway 2 to Te Korokoro o Te Mana is reinstated to allow traditional mai uta ki tai.	Short term
Taonga species	The water conditions, level, and habitat in the awa, its tributaries, and the Korokoro Estuary support the presence, abundance, survival, and recovery of: 1. Benthic macroinvertebrates/freshwater bugs including kōura, kākahi 2. At-risk and threatened indigenous fish species like banded kōkopu, bluegill bully, smelt, giant kōkopu, kōaro, longfin and shortfin tuna, and redfin bully.[27] 3. Inanga, and inanga spawning habitat at the lower reaches of the estuary 4. Native birds. The lower reaches provide healthy inanga spawning habitat. The Korokoro estuary is prioritised for protection and restoration so that it is a healthy functioning estuary.	Medium term
Wāhi Mahara (places of learning and where local knowledge and histories are etched into the landscape)	Kei te oti te mauri/mouri (the mauri/mouri of the place is intact) and customary resources are available so that Mana Whenua can safely access and harvest rongoā, raranga (weaving materials), and mahinga kai. Mana Whenua are able to access the awa and exercise customary practices like tohi (baptism), karakia (prayer), waiora (protective incantation), and tuku iho (gifting of knowledge and resources to future generations).	Access for Mana Whenua is a short time goal, all other outcomes are medium term.

27 See Schedule I 4 and Map 19 of the PNRP.





14 Te Tāone o Pōneke
WELLINGTON URBAN

14.1 Te whakamārama i Kaiwharawhara me ētahi atu awa o te tāone o Pōneke
Describing Kaiwharawhara and other Wellington urban streams

Wai Kino - Contaminated by human waste

The Wellington Urban FMU is made up of a number of urban streams including the larger Kaiwharawhara, Karori and Owhiro awa. Te Mānga o Kaiwharawhara (including Te Mahanga and Korimako Streams) are Ngā Taonga Nui a Kiwa (the treasured inheritance of Kiwa refers to those waterbodies of most importance to Mana Whenua identified in Schedule B of the PNRP) for Taranaki Whānui.

Kaiwharawhara and other urban streams are assessed as Wai Kino on the Mana Whenua assessment framework. This is due to the presence of human waste (E. coli) in these streams which poses a risk to life and means that contact with the water should be avoided. It is noted that not all urban streams are monitored for contaminants, however the dilapidated state of residential and commercial waste and stormwater systems means that unless stated otherwise the assumption is that they are contaminated with E. coli.

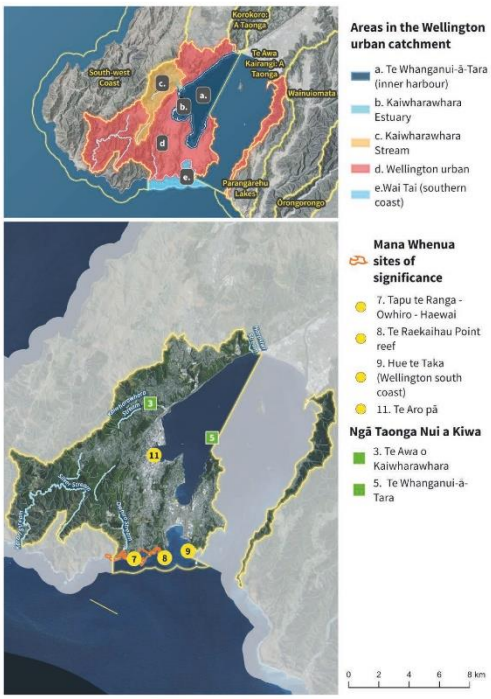
Kaiwharawhara is the largest stream system in Wellington city and one of the few remaining tributaries that has a relatively natural estuary mouth into the harbour. The stream runs around the west of Te Ahumairangi (Tinakori Hill), the maunga (mountain) from which five streams flow that traditionally sustained the city of Wellington. As a result, Te Mānga o Kaiwharawhara and its environs are considered significant to both the history and continued well being of Mana Whenua. The stream is also a site of wāhi whakarite (preparing for an important activity/event) and was used for rituals such as planting at Puanga/Matariki. The Kaiwharawhara Pā was located near the stream mouth and remains a significant site for Taranaki Whānui, forming the original gateway into Wellington.

Despite the surrounding environment being heavily urbanised and the stream experiencing pressures from urban land uses, such as from stormwater, the Kaiwharawhara Stream has high ecological and cultural values. Kia Mauri Tonu Ora te Kaiwharawhara (Sanctuary to Sea) is a project funded to continue the creation and restoration of the genus fish habitat, which includes spawning sites. Monitoring is also carried out at Zealandia, in which te mātāpuna are found.

In Karori, the stormwater runoff from the urban environment is primarily responsible for the poor health of the Karori Stream. E coli is a dry and wet weather problem in Karori which suggests there is sewage going in all the time. In addition, the sewage discharge at Karori Stream mouth is of particular concern to Mana Whenua as the effects of the activity on mahinga kai and cultural use are neither monitored nor understood.

The āku waiheke (small streams) such as Te Māhanga, Waimapihi, Kumutoto, Kotimako Stream, Akiwai, Wairangi Stream and many others within Wellington City have been piped and covered over by roads and buildings. Their mana and mauri are lost to the community and Mana Whenua retain an aspiration for their restoration and return to the world of light.

Mana Whenua want to restore both the mana and the water quality of the Kaiwharawhara and other urban streams. Suggested management methods focus on strengthening Mana Whenua and community engagement and buy-in through mātauranga Māori monitoring and restoration. Longer-term improvements require a complete upgrade of existing wastewater and stormwater networks.



14.2 Ngā whainga mō Kaiwharawhara me ētahi atu awa o te taone o Pōneke

Objectives for Kaiwharawhara and other Wellington urban streams

These are a complete list of Te Kāhui Taiao's ngā huanga (outcomes) for the Wellington urban streams.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long term.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Ngā awa tipua	The awa are recognised and considered as whanau (family group) and taonga by the people of Te Whanganui a Tara. The awa has its own identity, unique personality, and mauri/mouri. These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Te Mātāpuna	Te Mātāpuna are places of great beauty, the waters are pristine and are not to be used for recreational or commercial fishing purposes. Mana Whenua (iwi recognised as having mana over a region) have access to te matapuna (the headwaters) and make decisions around its use, restoration and protection including using whakatapu (placing of rāhui) and whakaroa (removal of rāhui).	Short term
Aku Waiheke/ Ngā wai huna	The aku waiheke (small streams) such as Te Mahanga, Kotimako Streams, Akiwai, Wairangi Streams and Days Bay Stream, including ngā wai huna (concealed waters) and aquifers is enhanced by: 1. Naming piped and unrecognised streams. 2. All aku waiheke (small streams) and nga wai huna (concealed waters) traditional Māori names are used. 3. All aku waiheke (small streams) and nga wai huna (concealed waters) which are not named, or have anglicised names, are given traditional Māori names under the guidance of Mana Whenua. 4. These names are formalised and shared with the local community and Mana Whenua through education and signage. 5. Monitoring for water quality/quantity and for the presence of indigenous biodiversity and ecological function. Streams that are currently piped are daylighted as far as practicable and are able to take their natural form and path. Where streams cannot be daylighted their ecological values are recognised. Native fish have access to move freely up and down the entire length of the catchment.	All are short-term outcomes except for re-naturalisation of the stream which is a medium-term action.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Āhua	The awa has a natural variation of flows. The stream is able to meander and has natural beauty. The water is clear with good clarity so that the bed of the awa is easily visible. The awa and its corridor smell of clean water, native forest, and the forest floor. The voice of the awa can be heard. The presence of native flora and fauna can be observed and heard in the water spaces. The voice of the awa reflects the natural variations in flow, the movement of bed material, and bird and insect life within the river corridor. The awa and the area immediately surrounding it is a place of beauty and it feels serene and uplifting both in and out of the water. The natural flow of the water down the awa is not constrained by instream structures. The awa is able to express its natural form and has a natural pattern of pools, runs and riffles. The full extent of the banks of the awa and the river corridor is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna.	The existing restorative works contributing to āhua (natural look) is short term. Otherwise huanga are long term.
Ngā Mahi a ngā Tūpuna	We show respect for our awa, estuarine and coastal waterbodies and tupuna by ensuring that all waterbodies are clean and healthy.	Medium term
Te nui o te Wai	There is sufficient water quantity and flow levels in the awa so that: 1. There is connectivity between te matapuna and aku waiheke (small streams) through to takutai moana (the sea). 2. The water levels of all awa have sufficient depth all year round to support the movement of native fish species up and down the river system. 3. Mana Whenua can practice cultural immersion and other traditional modern cultural uses. 4. All life stages of taonga species are catered for, including drift feeding fish. 5. The natural rhythms and hydrology of the river is supported. The awa can be calm, but she is also allowed to be in anger. 6. The flow is sufficient so that it keeps the river mouth open. 7. There is connectivity between the awa and its banks to support spawning fish. 8. The bed of the awa does not dry up during summer months. 9. It supports an abundant and diverse range of aquatic life including microbes, invertebrates, indigenous fish species, native birds and indigenous plants.	Medium term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mana o te Tangata	Mana Whenua rights as kaitiaki and mana whakahaere are in place so that iwi and hapu: 1. Have access to and can make decisions about how the awa is managed. 2. Can use mātauranga Māori, Mana Whenua ecological monitoring, and observational data to inform decision-making around the awa. 3. Are able to exercise customary practices within the taiao such are harvesting rongoa. 4. Can share a diverse range of mātauranga Māori with whānau (family group) and this includes knowledge around rongoā, astrology, horticulture and fishing. 5. Practice manaaki turanga, the sharing of management of the awa with the wider community and existing care groups.	Short term
Wāhi tapu, wāhi tupuna, wāhi maumahara	Significant sites that are wāhi tapu (sacred place), wāhi tupuna (significant ancestral and/or wahi maumahara) include: 1. Tapu te Ranga, Owhiro and Haewai 2. Te Raekaihau Point Reef, and 3. Te Tangihanga-a-Kupe (Barrett Reef). At these sites, whānau (family group) are able to carry out rituals and ceremonies which include: 1. Tohi (baptism) 2. Karakia (prayer) 3. Waerea (protective incantation) 4. Whakatapu and whakanoa (placing and removal of rāhui), and 5. tuku iho (gifting of knowledge and resources to future generations).	Short term
	Wāhi tapu, wāhi tupuna and/or wāhi maumahara sites support the healthy wairua of the tangata/people because: 1. Whanau have access to these sites and manage them according to tikanga. 2. Regional Council delegates its power under section 33 of the RMA to Mana Whenua to make decisions around freshwater management for wāhi tapu sites that includes (but is not limited to) monitoring and restoration. 3. The wai is clean and safe for use.	
Te Mahi Kai/ Mahinga kai	The whole catchment supports the entire life cycle of mahinga kai species. Mahinga kai species are safe to harvest and eat.	Medium term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	Mahinga kai sites include the Kaiwharawhara stream, its tributaries and the Kaiwharawhara estuary, Tapu te Ranga, Ōwhiro Bay, Haewai (on the south coast of the Wellington Peninsula), and Whiorau/Lowry Bay Mahinga kai sites of significance also include Te Raekaihau Point Reef, Te Tangihanga-a-Kupe (Barrett Reef), Hue te Taka Peninsula and Te Aro Pā. At mahinga kai sites these fish and macroinvertebrate species are present: longfin tuna, shortfin tuna, piharau (lamprey), koura, kakahi, paua, pipi, kina, and mussels. At mahinga kai sites these plant species are present: wharawhara, kiekie, harakeke, pūhā, and poroporo. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long term harvest including for manuhiri and to exercise manaakitanga.[28]	Medium term
	At mahinga kai sites, kei te ora te mauri/mouri (the mauri/mouri of the place is intact) and Mana Whenua can: 1. Access mahinga kai sites and species. 2. Practice tikanga and preferred methods of harvest for kai. 3. Exercise customary practices to the extent desired. 4. Transfer knowledge on the preparation, storage, and cooking of kai. 5. Make decisions around the protection and restoration of wai and taiao where mahinga kai is present/practised. This could include through the use of customary practices like rāhui.	
Wāhi Whakarite	The water is clean and safe to interact with, and the river margins are safe and there is space for whānau (family group) to: 1. Access traditional pā sites. 2. Practice rituals like planting Puanga/Matariki. 3. Hold wānanga to continue indigenous practices like living by the maramataka. 4. Collect water to use in mauri/mouri-enhancing ways including waiohi (traditional baptismal ceremonies) and mate. 5. Share intergenerational knowledge and resources with whānau (family group) and manuhiri.	Short term

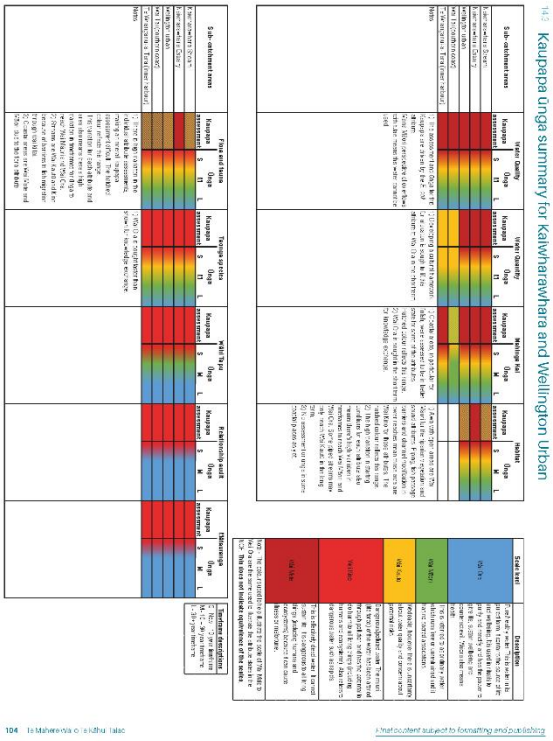
28 See Schedule C4 and Map 6 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Taonga species	The water conditions, level, and habitat in the awa, estuary and ocean support the presence, abundance, survival, and recovery of: 4. Benthic macroinvertebrates/freshwater bugs including kōura, kākahi, 5. At-risk and threatened indigenous fish species like banded kōkopu, giant kōkopu, shortjaw kōkopu, īnanga (which spawn at the Karori Stream mouth's tidal zone), koaro, redfin bully, bluegill bully, giant bully, longfin tuna, and shortfin tuna.[29] The lower reaches provide healthy īnanga spawning habitat.	Medium term
Contact recreation and Māori customary use/taunga ika (fishing grounds)	The health of the wai at takutai moana (the sea) is prioritised for improvement for contact recreation and Maori customary use at: 1. Owhiro Bay 2. Island Bay (in particular Derwent Street, Reef Street, and Island Bay Surf Club), and 3. Wellington Harbour (in particular Harris Street, Hunter Street and Tory Street). So that Mana Whenua (iwi recognised as having mana over a region) can connect with these waterbodies through a range of activities without getting sick and/or developing skin rashes including te mahi hī ika (fishing), kaukau (swimming) and rukuruku (diving). The water levels in traditional swimming places should not drop below hip level.	Medium term
Swimming	The water is suitable for primary contact throughout the catchment.	Long term

29 See Schedule F1 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Takutai moana	The Kaiwharawhara Estuary is prioritised for protection and restoration so that: 1. It is a healthy functioning estuary. 2. The water conditions and habitat in the estuary support the presence, abundance, survival, and recovery of 11 at-risk and threatened indigenous fish species: banded kōkopu, bluegill bully, common bully, giant bully, giant kokopu, inanga, kōaro, longfin eel, redfin bully, shortfin eel, and shortjaw kokopu.[30] 3. The smell at the bottom of the Kaiwharawhara Stream is no longer offensive but smells like clean freshwater and saltwater. 4. There is plentiful mahinga kai species like longfin, shortfin tuna, inanga and piharau that are safe to harvest and consume. Kia Mauri/mouriora te Kaiwharawhara (the Sanctuary to Sea project) is funded to continue the creation/restoration of indigenous fish habitat including spawning sites.	Funding for Sanctuary to the Sea is prioritised in the short term. All other huanga are long-term.

30 The Kaiwharawhara Stream mouth/estuary is a site of significance for indigenous biodiversity values in the coastal marine area (see Map 19 in the PNRP).



14.3 Kaupapa ūnga summary for Kaiwharawhara and Wellington Urban

104 Te Mahere-wai o te Kāhui Tatac

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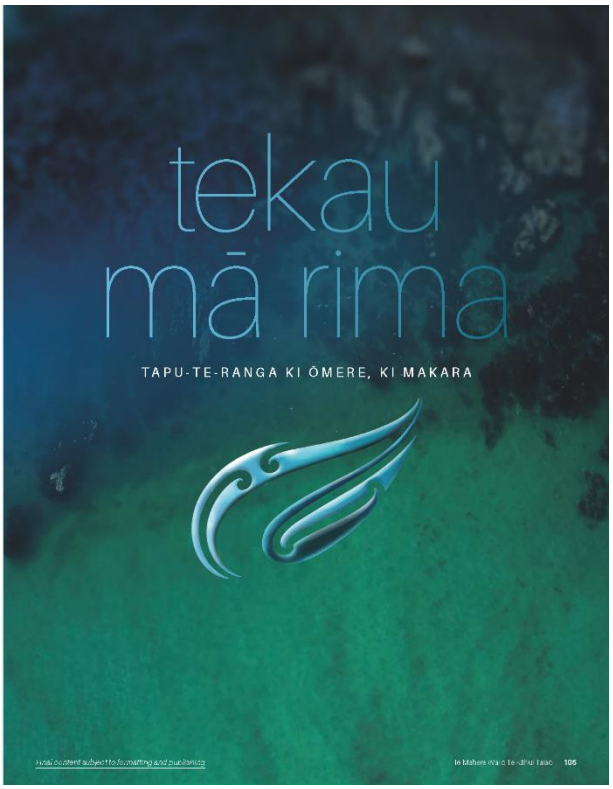

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Te Mahere Wai o te Kāhui Tatac 105

15 Tapu-te-ranga ki Ōmere, ki Makara

SOUTHWEST COAST

The Southwest Coast comprises the Karori and South Karori Streams, and the Makara Stream, Estuary and coast and the many tributaries that feed into these waterbodies. The continued connectivity between these streams to the coast is of critical importance to Mana Whenua (iwi recognised as having mana over a region).

South of the Karori whaitua are a number of wahi tupuna and wahi tapu of significance to Ngati Toa Rangatira and Taranaki Whanui, which include Te Rimurapa/Sinclair Head and Pariwhero/Red Rocks. These ancestral and sacred places are also sites where mahinga kai is harvested and and hi ika is practiced.ika is practiced

15.1 Te whakamārama i Karori, Makara me ētahi atu awa takutai me ngā wāhi ngūtu awa

Describing Karori, Makara, and other coastal streams and estuarine areas

Wai Kautu - wadeable - state of uncertainty and risk

Southwest Coast is regarded as being in a state of uncertainty and risk based on the Te Oranga Wai Mana Whenua assessment. This is in part due to a lack of information and monitoring on the impact of wastewater discharges on the inter-tidal marine environment and mahinga kai areas. The vulnerability of small streams to discharge and damage from stock and septic tanks which are both currently unmanaged is an ongoing risk.

Mana Whenua seek to become directly involved in the monitoring and management of the Southwest coast and its waterbodies to ensure a pathway to improvement is planned and implemented inclusive of mataurangaa-Maori (Maori knowledge). This includes the setting of Te Oranga Wai target states for coast and rural streams and wastewater discharge areas.

Despite the uncertainty surrounding these waterbodies they remain taonga for Mana Whenua.

The Makara Stream is located on the outskirts of Wellington City and flows in a north westerly direction, through predominantly pastoral land, before entering the sea at Oharlu Bay. There are many iku waiholo (small streams) and nga wai huna (concealed waters) in the whaitua that flow into the Makara Stream. These have unique values that must be recognised and protected.

The stream and its corridor support many mahinga kai plants like puha and tomoot and mahi raranga plants like harakeke, reupo, and plants for weaving and rongoa (healing). While the most noteworthy Mana Whenua values in this area are mahinga kai and kaimoana, the estuary is also recognised for other special values such as waka, healing from the ocean, and the cleansing rongoa of the wind. Mana Whenua also value the connections with cousins across the ocean. Oharlu Pa is found on Makara Beach and is of significance to Ngati Tama.

The Makara Estuary or river mouth is recognised as a significant natural wetland and is the only remaining salt marsh estuary on the Wellington Peninsula and is an important refuge for feeding and nesting birds, such as pied shag, red-billed gull, white-fronted tern, black shag, pied stilt, and variable oystercatcher. The salt marsh also provides seasonal or core habitat to threatened indigenous fish species like longfin eel, giant kokopu, kōaro, inanga, redfin bully, bluegill bully and piharau.

Te Kahui Taiao met with Mana Whenua at Takapowahia Marae on 19 April 2021. We heard from them that whanau (family group) could traditionally swim, and harvest and consume kaimoana like tuna, mullet, and pipis, without becoming mauiui (unwell). Areas where paua once lived have now completely disappeared, except in Ohau North where there are lots of small, undersized paua. There is also immense pressure on coastal resourcing from poaching.

The water level in Te Manga o Makara water is currently very low, which is possibly affected by cumulative water takes. There is also a real risk that the cumulative impacts of rural septic systems and discharges are increasing the amount of E.coli in the streams. The Makara stream and tributaries are characterised by having narrow channels and low flows relative to their length and the scale of the steep landscape they drain. Their relatively small size makes them disproportionately vulnerable to E. coli and sedimentation caused by cattle grazing and plantation forestry. Their small size also means they are not currently protected under the existing stock exclusion provisions in the PNRP.

A lot of regeneration of native forest is occurring around the Te Rawhiti wind farm where farming is slowly disappearing. Mana Whenua strongly support the retirement of this land and other rural areas from traditional farming (particularly cattle) to protect iku waiholo (small streams) and te mahapuna and the receiving coastal environment, and this is included as a recommendation in this document.

There are numerous wahi tupuna (places associated with ancestors), wahi tapu (places still sacred) and wahi maumahara (places with significant history) sites at takutai moana (the sea) that are of significance to Ngati Toa Rangatira and Taranaki Whanui. Most of these ancestral and sacred places, in addition to Korohiwa-ton-kasa coast of the harbour by Muritai, are sites where the harvest of mahinga kai (gathering food) and to mahi hi ika (line fishing for kaimoana) are practised.

106 Te Mahere-wai o Te Kāhui Tatac

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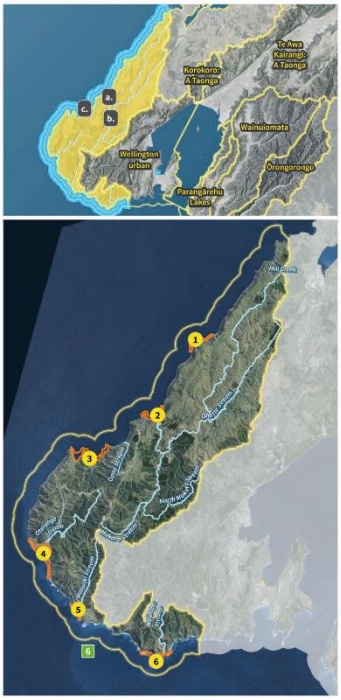
Te Mahere-wai o Te Kāhui Tatac 107



15.2 Ngā whāinga mō Karori, mō Mākara me ētahi atu awa takutai me ngā ngūtu awa

Objectives for Karori, Mākara and other coastal streams and estuarine areas

These are a complete list of Te Kāhui Takiwā's ngā huanga (outcomes) for the Southwest Coast streams and receiving environment.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long term.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Ngā awa tipua	The awa, estuarine and coastal waters are recognised and considered as whānau (family group) and tēonga by the people of Te Whanganui a Tara. The awa has its own identity, unique personality, and mauri/mouri. These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Āku Waiheke/ Ngā wai huna	The small streams like Otetaranga Stream, and all other tributaries including ngā wai huna (concealed waters) and aquifers is enhanced by: 1. Naming piped or unrecognised streams. 2. All āku, waiheke (small streams) and ngā wai huna (concealed waters) traditional Māori names are used. 3. All āku, waiheke (small streams) and ngā wai huna which are not named, or have anglicised names, are given traditional Māori names under the guidance of Mana Whenua (iwi recognised as having mana over a region). 4. These names are formalised and shared with the local community and Mana Whenua through education and signage. 5. Monitoring for water quality/quantity and for the presence of indigenous biodiversity. Streams that are currently piped are daylighted as far as practicable and can take their natural form and path. Where a stream cannot be daylighted their ecological values are recognised. Native fish have access to move freely up and down the entire length of the catchment.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Tiaki whenua	The land around small streams and awa is managed sensitively so that: 1. The full extent of the banks of the awa and the river corridor from the headwaters to takutai moana (the sea) is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna. 2. Adjoining farmland, like the Te Rawhiti Wind Farm, is retired to allow native vegetation to regenerate. 3. The natural flow of the water down the awa is not constrained by instream structures. The awa can express its natural form and has a natural pattern of pools, runs and riffles. 4. Mana Whenua are involved in the decision-making around activities that may have an adverse impact on these streams.	Medium term
Ngā Mahi a ngā Tūpuna	We show respect for the awa and our tūpuna by ensuring that all waterbodies are clean and healthy.	Medium term
Te nui o te Wai	There is sufficient water quantity and flow levels in the awa so that: 1. There is connectivity between te mātāpuna and āku waiheke (small streams) through to takutai moana (the sea). 2. The water levels of all awa have sufficient depth all year round to support the movement of native fish species up and down the river system. 3. All life stages of tāonga species are catered for, including diff-feeding fish. 4. The natural rhythms and hydrology of the river is supported – the awa can be calm, but she is also allowed to be riri (angry). 5. The flow is sufficient so that it keeps the river mouth open. 6. There is connectivity between the awa and its banks to support spawning fish. 7. The bed of the awa does not dry up during summer months. 8. It supports an abundant and diverse range of aquatic life including microbes, invertebrates, indigenous fish species, native birds and indigenous plants.	Medium term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mana o te Tangata	Mana Whenua rights as kaitiaki and mana whakahaere are in place so that iwi and hapū: 1. Have access to and can make decisions about how awa are managed. 2. Can use mātauranga Māori, Mana Whenua ecological monitoring, and observational data to inform decision making of te mātāpuna (the source or headwaters of the river) through to takutai moana (the sea). 3. Can exercise kaitiakitanga (guardianship) and manaakitanga (hospitality) through practices such as rāhui for mātaitai (coastal areas) on tāonga species such as kōura/crayfish and pāua. 4. Are contributing to the community's understanding of Te Ao Māori, Mana Whenua values and historical relationship with the Makara Coast through education and iwi designed bollards and signs. 5. Practice mānaaki tuuranga (manuhiri), the sharing of management of wai with the wider community and existing care groups.	Short term
Wāhi tapu, wāhi tupuna and wāhi maumahara	The following are significant wāhi tupuna, wāhi tapu and wāhi maumahara sites: Okeranga Bay/Oterongo Bay, Ohariu Bay/ Wharehou Bay, Waiariki Stream mouth and coast, Kie Kie/Kia Kia (Ngutu Kāka pā) (Pipinui Point), Te Ika-a-Maru - Ohau Bay, Te Rimurapa/Sinclair Head and Pariwhero/Red Rocks.[31] Wāhi tapu sites support the healthy wairua of the tangata/people because: 1. Whānau (family group) can access these sites and manage them according to tikanga. 2. Regional council delegates its power under section 33 of the RMA to Mana Whenua to make decisions around freshwater and its receiving environments for wāhi tapu sites that includes (but is not limited to) monitoring and restoration. 3. The water is clean and safe for use. 4. Whānau (family group) can practice cultural rituals and ceremonies, such as tohi (baptism), karakia (prayer), wawaia (protective incantation), whakatapu and whakanoa (placing and removal of rāhui), and tuku iho (gifting of knowledge and resources to future generations). 5. Whānau (family group) can practice tuku iho (transfer knowledge and resources to future generations) at these sites.	Short term

31 See Schedules C3 and C4, and maps a and 6 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mahi Kai/ Mahinga kai	The whole catchment supports the entire life cycle of mahinga kai species. Mahinga kai species are safe to harvest and eat.	Medium term
	The following are mahinga kai sites and sites of significance: 1. Kie ke/Kia kia/Pipinui Point (formerly the site of the Ngauru Kākā pā) 2. Ōharīu Bay/Wharehau Bay and Te Ika-a-Maru/Ohau Bay (important sites for Ngāti Toa Rangatira and Te Ātiawa/Taranaki Whānui that includes Wharehau Pā) 3. Ōtoranga Bay/Ōtorongo Bay (an important site for both Te Ātiawa/Taranaki Whānui and Ngāti Toa Rangatira) 4. Waiorīki Stream mouth and coast 5. Korohīwa Ion east coast of the harbour by Muritaī, and 6. Te Rimurapa/Sinclair Head and Pariwhero/Red Rocks [32] At mahinga kai sites fish and macroinvertebrate species like mullet, pātiki, pipi, paua, kākahi, kōura and cockles are present. At mahinga kai sites plant species like harakeke, raupō, kareao, pōhā and fernfroot are present. Other mahinga kai like stones used for tool making, mud for weaving dyes, and plants for rongoa (traditional medicine) are present. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long-term harvest including for mana whenua to exercise manaakitanga.	Medium term
	Mana Whenua are able to make decisions around the harvest of mahinga kai and can: 1. Access mahinga kai sites and species. 2. Transfer knowledge about preparation, storage, and cooking of kai through wananga and other means of communication. 3. Develop measures like rāhui to protect against exploitation and overfishing that are able to be enforced. 4. Practise tikanga and other preferred methods of harvest safely and at the most appropriate time of the year. 5. Exercise customary practices to the extent desired.	All short term

32 See Schedules G3 and G4, and Maps 5 and 6 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Taonga species	The water conditions, level, and habitat in the awa, estuarine area and takutai moana (the sea) supports the presence, abundance, survival and recovery of: 1. Benthic macroinvertebrates that include kōura and kākahi. 2. Threatened and at-risk native migratory species such as banded īnaki, giant īnaki, kōaro, īnanga (which spawn at the Makara Stream's mouth's tidal zone), common smelt, black flounder/pātiki, mullet, piharau, longfin tuna, shortfin tuna, redfin bully, bluegill bully, and upland bully.[33] Fish barriers have been removed and fish passage is supported. The lower reaches provide healthy īnanga spawning habitat.	Medium term for improved presence, abundance and survival of īnanga species and water levels. Short term timeframe for removal of fish barriers and Mana Whenua inclusion in freshwater decision-making.
Contact recreation/Māori customary use	The water in the awa and at takutai moana (the sea) is clean and cool and there are enough safe accessible sites that support a range of interactions so that: 1. People can immerse themselves in water (swimming, bathing, diving, being in the water to replenish mauri/moun) without getting sick and/or developing skin rashes. 2. Rangatahi (youth) can do bombs in waterholes and can safely mahi pārekareka (relaxation and recreation) īnaki (play in the water). 3. The corridor and banks of awa are easily accessible and shaded by native vegetation that allows elderly whānau (family group) to mahi pārekareka (rest, relax alongside the awa). 4. The water levels in traditional swimming places should not drop below hip level. 5. Whānau (family group) can dive/rukuruku for and harvest kaimoana. 6. The water levels in traditional swimming places should not drop below hip level. Karori Stream is a significant contact recreation freshwater and coastal waterbody.[34]	Long term

33 See Schedule F1 of the PNRP.

34 See Schedule H2 of the PNRP. Karori Stream is a significant contact recreation freshwater and coastal waterbody.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te ūrui Moana	The Makara Estuary is prioritised for protection and restoration so that it is a healthy functioning estuary that supports the presence, abundance, survival, and recovery of: 1. Threatened indigenous fish species, like longfin tuna, giant kōkopu, kōaro, īnanga, redfin bully, bluegill bully, and piharau. 2. Feeding and nesting birds (year-round) such as pied shag, red-billed gull, white-fronted tern, black shag, pied stilt, and variable oystercatcher.[35] The Makara Estuary is enhanced by educating the public about its ecological and cultural values, including through the use of signage to describe the site and its inhabitants (in te reo Māori and English).	Long term

35 See Schedule F4 of the PNRP.

16 Wainuiomata

The Wainuiomata catchment is made up of many unique parts. Te kuinga o te awa (the source of the river) is the Remutaka Ranges. The water flows through a number of small, forested streams, before it passes through the suburb of Wainuiomata. The mainstem, and a number of smaller rural streams then flow through primarily pastoral land, before entering the ocean at Wellington's south coast.

The awa (river) and its surrounding taiao is valued for its ahua (natural character).

Te mātāpuna (headwaters) of Te Awa o Wainuiomata are found in the Remutaka Ranges, and are places of great beauty, pristine waters, and a source of mauri/mouri. The upper reaches of the river are recognised for having outstanding indigenous ecosystem values, reflected in macroinvertebrate health, indigenous fish diversity, and threatened fish species. They also contain an abundance of native vegetation, and rongoā such as tīoitoi, makomako, munamuna, kawakawa, and ranginora.

16.1 Te whakamārama i Wainuiomata

Describing Wainuiomata

Wai Kino - Contaminated by human waste

Wainuiomata is assessed as Wai Kino on the Te Oranga Wai Mana Whenua assessment framework. This is due to the presence of human waste (E.coli) in the stream which poses a risk to health and means that contact with the water outside of the headwater forested areas should be avoided. There remains considerable uncertainty about the state of the urban wastewater network and the non-point contamination from farming and life-style blocks.

Mana Whenua want to restore the mana and the water quality of the Wainuiomata from mai uta ki tai (from the inland to the sea). We note there are particular challenges in the restoration of Black Creek that will require specific regulatory and non-regulatory interventions.

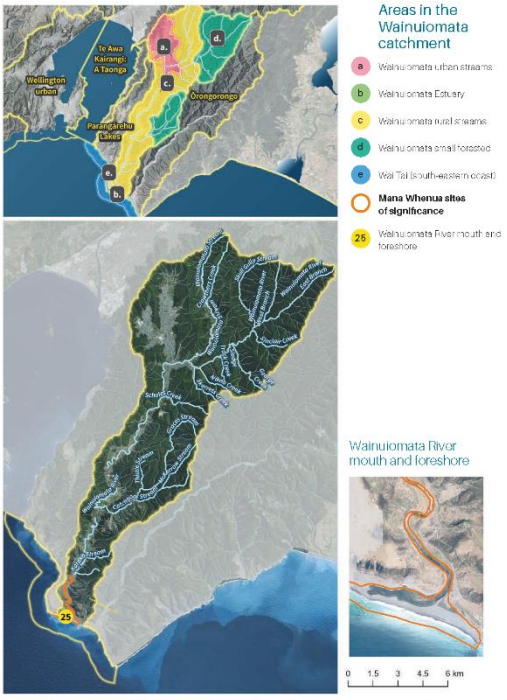
Suggested management methods focus on strengthening Mana Whenua and community engagement and buy-in through mātauranga Māori monitoring and restoration. Longer-term improvements require a complete upgrade of existing wastewater and stormwater networks.

The small, forested streams of the Wainuiomata and its tributaries, such as Catchpool Stream, are wai tapu, which are sacred places where rituals and ceremonies were practised by Mana Whenua. The water is wai mauri ora (pristine virgin water) and rohi (baptism) and cultural immersion take place here. There are numerous āku waiheke (small streams) in the upper reaches of the whaitua with unique values and mana that should be recognised and protected. These include George Creek and Black Creek. It should be noted that Black Creek was a name given to a section of the headwaters of the Wainuiomata River (near Richardson Rd) before deforestation and is not the same as the Black Creek (Okauti or Ōpahū which flows through central Lower Hutt.

The Wainuiomata River and George Creek are Wai Māori (fresh drinking water sources), both places in which surface water is abstracted for community drinking water supply. The whaitua provides water to four of Wellington's main centres and contributes to approximately 10 percent of the region's water supply, including Porirua.

Many taonga species precious to Mana Whenua have been found in the mātāpuna of the awa, and in the mainstem, above Black Creek. The Wainuiomata River is also valued for its Māori customary and recreational uses. It supports a variety of activities such as whitebait (fine fishing), te hao ika (net ring) te hopu puna (taking eels) and kaukau (swimming).

The Wainuiomata river mouth and foreshore are sites of significance to Taranaki Whānui, in addition to being key mahinga kai sites. The Wainuiomata Estuary contains habitat for and is home to many native fish migratory species and native birds that are taonga to Mana Whenua. The estuary is one of less than half a dozen sites along the south Wellington coastline that supports a breeding population of tuturuwhatu (banded dotterels). In addition, inanga spawning habitat is found in vegetation near river mouth.



Areas in the Wainuiomata catchment

- a Wainuiomata urban streams
- b Wainuiomata Estuary
- c Wainuiomata rural streams
- d Wainuiomata small forested
- e Wai Tai (south-eastern coast)
- Mana Whenua sites of significance
- 25 Wainuiomata River mouth and foreshore

16.2 Ngā whāinga mō Wainuiomata

Objectives for Wainuiomata

These are a complete list of the ngā huanga (outcomes) of Te Kāhui Tātaki for Wainuiomata and its receiving environment.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long term.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Ngā awa tīpua	The awa is recognised and considered as whānau (family group) and taonga by the people of Te Whanganui-a-Tara. The awa has its own identity, unique personality, and mauri/mouri. These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Wai tapu (waters for ritual purposes)	The small, forested streams of Wainuiomata are wai tapu. At these streams and their tributaries, which include Catchpool Stream, the water is wai mauri ora (pristine virgin water), that is of pristine quality, and the river margins are safe and accessible for Mana Whenua to practice traditional rituals and ceremonies like: 1. Tohi (baptism) 2. Cultural immersion 3. Karakia (prayer) 4. Whakapā (placing of rāhui) 5. Whakaroa (removal of rāhui), and 6. Taonga tuku iho (gifting of knowledge and resources for future generations). The water quantity and flow of the streams allow for hapū/iwi to practice cultural immersion throughout the year. Outside of these uses, access to the sites is managed to protect the cultural safety of the wai.	Short term
Te Matapuna (the headwaters)	The origins of the Wainuiomata Awa are high in the Remutaka Range forest park, and the headwaters: 1. Are pristine and serene 2. Are a source of mauri/mouri and pristine water 3. Have an abundance of native vegetation and native biodiversity 4. Rongoā like tīoitoi, makomako, mamaranga, kawakawa, and ranginora are present, and 5. These waters are not used for recreational or commercial fishing.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	To Matapuna (headwaters) are places of great beauty and require the highest level of protection around access and use. Mana Whenua rights as kaitiaki are in place so that iwi and hapū: 1. Are empowered and resourced to make decisions around the use, monitoring, restoration and protection of te mātāpuna (the headwaters). 2. Greater Wellington Regional Council delegates its power under section 33 of the RMA to Mana Whenua to make decisions around freshwater management for Black Creek in Wainuiomata that includes (but is not limited to) monitoring of awa and restoration. 3. Can access natural resources for customary purposes, and 4. Can develop measures like rahui to protect against exploitation like fishing, and limit access like prohibiting dogs near to matapuna (the headwaters) to protect native bird species such as kiwi.	
Āku Waiheke/ Ngā wai huna George Creek is fully forested and in pristine condition.	Give mana to āku waiheke (small streams), ngā wai huna (concealed waters) and aquifers including George Creek, Catchpool Stream and Black Creek, and their tributaries by: 1. Renaming Black Creek, and George Creek, both in Wainuiomata. 2. All āku waiheke (small streams) and ngā wai huna (concealed waters) traditional names are used. 3. All āku waiheke (small streams) and ngā wai huna (concealed waters) which are not named, or have anglicised names, are given traditional Maori names under the guidance of Mana Whenua. 4. These names are formalised and shared with the local community and Mana Whenua through education and signage. 5. Identifying stressors associated with these awa. 6. Ensuring Mana Whenua values are monitored and measured. Streams that are currently piped are daylighted as far as practicable and are able to take their natural form and path. Where streams cannot be daylighted their ecological values are recognised. Native fish have access to move freely up and down the entire length of the catchment.	Short term
Tiaki whenua (land conservation)	The land around small streams like Black Creek is managed sensitively so that: 1. The headwaters are in native vegetation. 2. Mana Whenua are involved in the decision-making around activities that may have an adverse impact on these streams, and 3. Large areas of land are not left cleared of vegetation at the same time.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Āhua (natural form)	The main stem awa have a natural variation of flows, are able to meander and have natural beauty. The water is clear with good clarity so that the bed of the awa is easily visible. The awa and its corridor smell of clean water, native forest and the forest floor. The voice of the awa can be heard. The presence of native flora and fauna can be observed and heard in the water spaces. The voice of the awa reflects the natural variations in flow, the movement of bed material, and bird and insect life within the river corridor. The awa and the area immediately surrounding it feels serene and uplifting both in and out of the water. The natural flow of the water down the awa is not constrained by instream structures. The awa is able to express its natural form and has a natural pattern of pools, runs and riffles. The full extent of the banks of the awa and the river corridor is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna.	Medium term

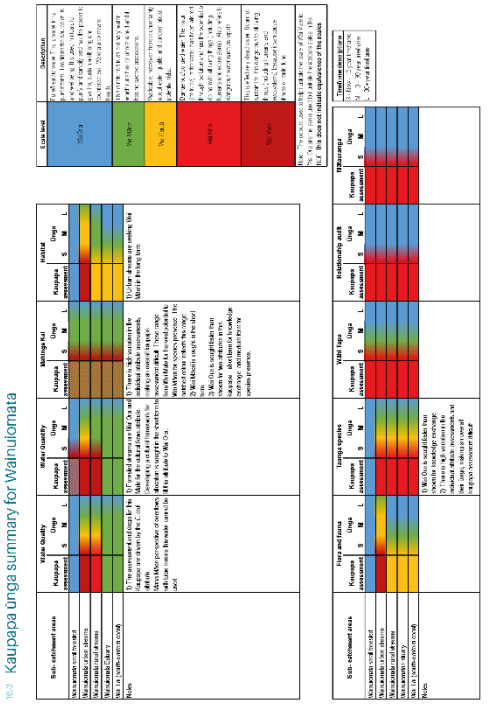
Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te nui o te Wai (abundance of water)	There is sufficient water quantity and flow levels in the awa so that: 1. There is connectivity between te mātāpuna (the headwaters) and āku waiheke (small streams) through to takutai moana (the sea). 2. The water levels of all awa have sufficient depth all year round to support the movement of native fish species up and down the river system. 3. Mana Whenua can practice cultural immersion and other traditional and modern cultural uses. 4. Rangatahi (youth) can swim from November through to April. 5. All life stages of taonga species are catered for, including drift-feeding fish. 6. The natural rhythms and hydrology of the river is supported – the awa can be calm, but she is also allowed to be riri (angry). 7. The flow is sufficient so that it keeps the river mouth open. 8. There is connectivity between the awa and its banks to support spawning fish. 9. The bed of the awa does not dry up during summer months. 10. It supports an abundant and diverse range of aquatic life including microbes, invertebrates, indigenous fish species, native birds, and indigenous plants. 11. Whānau (family group) can use water for economic purposes without causing the level of water in the awa to drop.	Medium term
Te Mana Whakahaere o ngā awa ki uta ki tai (customary authority over the rivers in both the upper and lower reaches)	A partnered management approach is adopted so that Mana Whenua work with regional council to develop, apply, monitor, and enforce holistic river management practices. The flood hazard risk to communities near Wainuiomata is managed so that the river is able to exhibit its natural form and character rather than being constrained and that river management includes opportunities for positive design such as recreating nga uranga (landing, arrival places). The existing global flood protection consent is reviewed so that it achieves these outcomes.	Short term, except for re-naturalising the awa (river), which is a long-term goal.
Wai Māori (fresh water)	George Creek and Wainuiomata Awa are key sources of community drinking water. The water is suitable for drinking and available within flow limits for that purpose.	Short term
Mahinga kai (food gathering)	The whole catchment supports the entire life cycle of mahinga kai species. Mahinga kai species are safe to harvest and eat.	Medium term

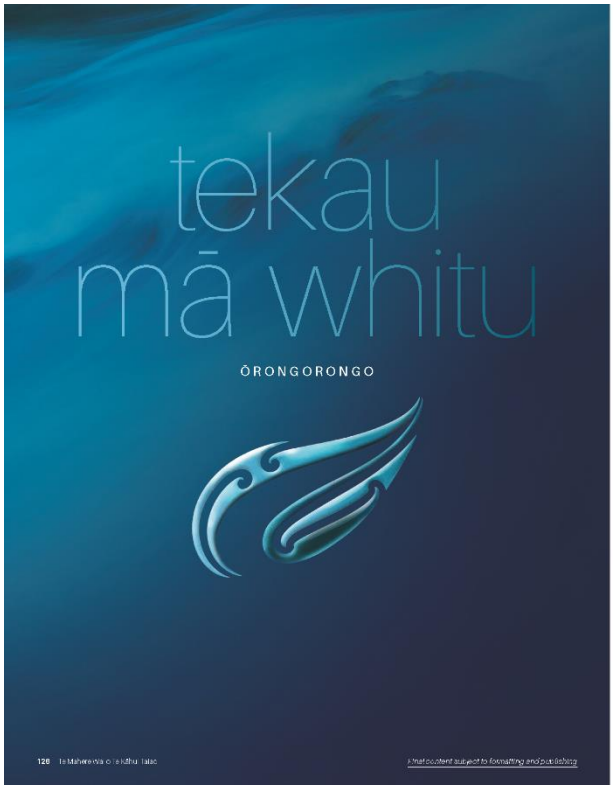
Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	The Wainuiomata River mouth and foreshore (coastal) are mahinga kai sites.[36] At mahinga kai sites these fish and macroinvertebrates are present: longfin tuna, shortfin tuna, kōura, kākahi, and pāua. At mahinga kai sites these plant species are present: karengo and plants for weaving and healing. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long-term harvest including for manuhiri and to exercise manaakitanga.	Medium term
	Mana Whenua are able to make decisions around the harvest of mahinga kai and can: 1. Access mahinga kai sites and species. 2. Transfer knowledge about preparation, storage and cooking of kai through wananga and other means of communication. 3. Develop measures like rahui to protect against exploitation and overfishing that includes a ban on all commercial eeling in the catchment. 4. Practice tikanga and other preferred methods of harvest safely and at the most appropriate time of the year. 5. Exercise customary practices to the extent desired.	Short term
Taonga species	The water conditions, level, and habitat in the awa and its corridor, support the presence, abundance, survival and recovery of: 1. Benthic macroinvertebrates/freshwater bugs including koura, kākahi 2. At risk and threatened indigenous fish species like banded kokopu, dwarf galaxias, giant kōkopu, koāro, shortjaw kōkopu, bluegill bully, giant bully, redfin bully, Cran's bully, piharau (lamprey), longfin tuna and shortfin tuna, and 3. Endemic plants, birds (like kiwi), indigenous reptiles and amphibians. The lower reaches provide healthy īnanga spawning habitat.	Medium term

36 See Schedule C4 and Map 6 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Contact recreation and Māori customary use	The water is clean and cool all year round and there are enough deep pools for a range of interactions to take place, so that: 1. People can immerse themselves in the water (swimming, bathing, being in the water to replenish mauri/mouri) without getting sick and not developing skin rashes. 2. Rangatahi (youth) can do bombs into the waterholes and can safely mahi pārekareka (relaxation and recreation) i te wai (play in the water). 3. The corridor and banks are easily accessible and shaded by native vegetation that allows old/iwi whānau to mahi pārekareka ki te wai, relax alongside the awa. 4. The water levels in traditional swimming places should not drop below hip level.	Short term
Swimming	The water is suitable for primary contact throughout the catchment. The Wainuiomata Awa is a significant contact recreation freshwater body, including for kau kau (swimming).[37]	Medium term
Takutai Moana	The Wainuiomata Estuary is prioritised for protection and restoration so that it is a healthy functioning ecosystem. The Wainuiomata Estuary provides safe habitat for indigenous birds such as banded dotterel, variable oystercatcher, white-fronted tern, Caspian tern, red-billed gull, pied stilt, black shag, pied shag, and New Zealand pipit. The Wainuiomata Estuary supports a healthy and abundant breeding population of tūturiwhatu (banded dotterels).[38]	Long term

37 See Schedule H1 and Map 20 of the PNRP.
38 Schedule I 4 and Map 19 of the PNRP.





17 Ōrongorongo

The Ōrongorongo Awa is located to the east of the Wellington Harbour and runs almost parallel to the Wainuiomata River before entering takutai moana (the sea) on Wellington's south coast.

17.1 Te Whakamārama i Ōrongorongo

Describing Ōrongorongo

Wai Ora - Water that sustains health and well being

Ōrongorongo is regarded as being in a state of Wai Ora (sustaining health and wellbeing).

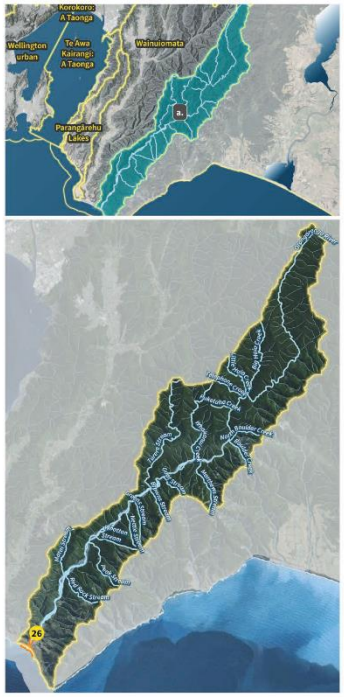
Ōrongorongo sets the benchmark (standard) in Ngā Kaiwai which envisions the return of Wai Ora throughout the whaitua. Maintaining Wai Ora for this taonga (treasure) is a key priority for Mana Whenua.

The awa (river) and its surrounding takiwā is valued for its āhua (natural character). The mātāpuna of Te Awa o Ōrongorongo is found in the Pākuratahi Forest and has pristine water quality. The upper reaches of the river contain an abundance of native vegetation, and rongoā such as tītoki, makomako, mamaranga, kawakawa, and rengiora can be found.

The awa is recognised for its remarkable indigenous ecosystem value, is characterised by high macroinvertebrate health and is home to many species that are taonga to Mana Whenua.

The Ōrongorongo River and Big Huia Creek are Wai Māori, both places in which surface water is abstracted for the community drinking water supply. The awa is also highly valued for its Māori customary and recreational uses. The riverbed is prone to drying during summer months and it is therefore important that environmental flows and levels are monitored to see whether this is a result of over-abstraction.

The Ōrongorongo Swamp is the only montane-alluvial wetland in the region and is considered one of the most pristine wetlands, with exceptional native ecosystem value. The Ōrongorongo awa is braided and the river mouth is wāhi tapu and a site of significance to Taranaki Whānui.



Areas in the Ōrongorongo catchment

a. Ōrongorongo

Mana Whenua sites of significance

26. Ōrongorongo River mouth

172 Ngā Whāinga mō Ōrongorongo

Objectives for Orongorongo

These are a complete list of Te Kāhui Taiao's huanga for Ōrongorongo and its receiving environment.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short[39], medium[40] or long-term[41]

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Ngā awa tīpua	The awa are recognised and considered as whānau (family members) and taonga (cultural treasures) by the people of Te Whanganui-a-Tara. The awa has its own identity, unique personality, and mauri/mouri. These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Te Matapuna	The origins of Ōrongorongo are high in the Remutaka Range, and Te Mātāpuna (headwaters): 1. Are clean and serene 2. Are a source of mauri/mouri and pristine water 3. Have an abundance of native vegetation and native biodiversity 4. Ngā rongoa like tītoki, makomako, mānamana, kawa-awa, and rangiora are present, and 5. These waters are not used for recreational or commercial fishing. Te Matapuna are places of great beauty and Mana Whenua rights as kaitiaki are in place so that iwi and hapū: 1. Are empowered and resourced to make decisions around the use, monitoring, restoration and protection of te mātāpuna, 2. Can access natural resources for customary purposes, and 3. Can develop measures like rāhui to protect against exploitation, like fishing that is enforceable.	Short term

39 Now - 10 year timeframe.

40 10 – 30 year timeframe.

41 30+ year timeframe.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Āhua	The main stem awa have a natural variation of flows, are able to meander and have natural beauty. The water is clear with good clarity so that the bed of the awa is easily visible. The awa and its corridor smell of clean water, native forest and the forest floor. The voice and personality of the awa can be heard and seen. The presence of native flora and fauna can be observed and heard in the water spaces. The voice of the awa reflects the natural variations in flow, the movement of bed material, and bird and insect life within the river corridor. The awa and the area immediately surrounding it feels serene and uplifting both in and out of the water. The natural flow of the water down the awa is not constrained by man-made structures. The awa is able to express its natural form and has a natural pattern of pools, runs and riffles. The full extent of the banks of the awa and the river corridor is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna.	Medium term
Ngā mahi a ngā tūpuna	We show respect for the awa and our tūpuna by ensuring that all waterbodies are clean and healthy.	Medium term
Te nui o te wai	There is sufficient water quantity and flow levels in the awa so that: 1. There is connectivity between te matapuna (headwaters) and iku waiheke (small streams) through to takutai moana (the sea). 2. The water levels of all awa have sufficient depth all year round to support the movement of native fish species up and down the river system. 3. Mana Whenua can practice cultural immersion and other traditional and modern cultural uses. 4. Tangatahi (youth) can swim (kaukaut, dive (hukurukuru) and mahi parekareka (te wai tākiy in the water) all year round. 5. All life stages of taonga species are catered for, including drift feeding fish. 6. The natural rhythms and hydrology of the river is supported. 7. The flow is sufficient so that it keeps the river mouth open. 8. There is connectivity between the awa and its banks to support spawning fish. 9. The bed of the awa does not dry up during summer months. 10. It supports an abundant and diverse range of wildlife like culturally significant fish species, native birds and indigenous plants. 11. Whānau (family group) can use water for economic purposes without causing the level of water in the awa to drop.	Long term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mana o te Tangata	Mana Whenua rights as kaitiaki and mana whakahaere are in place so that iwi and hapū: 1. Have access to and can make decisions about how the awa will be managed. 2. Are contributing to the community's understanding of Te Ao Māori, Mana Whenua values and historical relationship with the awa. 3. Can use mātauranga Māori, Mana Whenua ecological monitoring, and observational data to inform decision making around the awa. 4. Practice manaaki i runanga, the sharing of management of the awa with the wider community and existing care groups. 5. Can exercise whakatapu and whakanoa.	Short term
Wāhi tapu	The river mouth of the Ōrongorongo River is wāhi tapu and a site of significance for Taranaki Whānui. Wāhi tapu sites support the healthy wairua of the tangata/people because: 1. Whanau (family group) are able to access these sites and manage them according to tikanga. 2. Regional council delegates its power under section 33 of the RMA to Mana Whenua to make decisions around freshwater management for wāhi tapu sites that includes (but is not limited to) monitoring and restoration. 3. Whānau (family group) can practice cultural rituals and ceremonies, such as tohi (baptism), karakia (prayer), wāoroa (protective incantation), whakatapu and whakanoa (placing and removal of rahui), and tuku iho (gifting of knowledge and resources to future generations). 4. The wai is clean and safe for use. 5. Ngā urunga (landing/arrival places) are established along the river corridor and these are accessible by Mana Whenua, including by waka. 6. Whanau (family group) are able to practice tuku iho (transfer knowledge and resources to future generations) at these sites.	Short term
Wai Māori	The Ōrongorongo River, and Big Huia Creek, are key sources of community drinking water. The water is suitable for drinking and available for flow limits for that purpose.[42]	Medium term
Te Mahi Kai/ Mahinga kai	The whole catchment supports the entire life cycle of mahinga kai species. Mahinga kai species are safe to harvest and eat.	Medium term

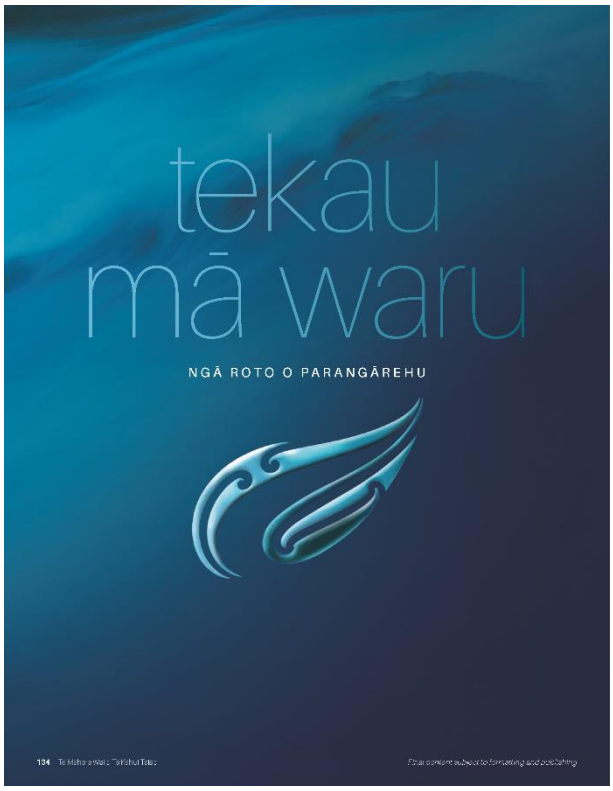
42 See Schedule M1 Surface water community water supply abstraction point of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	The Ōrongorongo River, in particular its river mouth, is an important mahinga kai site for the harvest of mahinga kai species, such as inanga, and longfin and shortfin eels (tuna).[43] At this site these plant species are present: pūhā and fernroot, and plants for weaving and healing like harakeke and raupō. Other mahinga kai like stones used for tool making, and mud for dyes are present. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long-term harvest including for manuhiri and to exercise manaakitanga.	Short term
	Mana Whenua are able to make decisions around the harvest of mahinga kai and can: 1. Access mahinga kai sites and species. 2. Transfer knowledge about preparation, storage and cooking of kai through wananga and other means of communication. 3. Develop measures like rahui to protect against exploitation and overfishing that are able to be enforced. 4. Practise ikanga and other preferred methods safely and at the most appropriate times of the year. 5. Exercise customary practices to the extent desired.	
Taonga species	The river and all its tributaries have high MCI count. The conditions of the wai (quality and quantity) and the habitat at the bed and banks of awa and its tributaries, are able to support the presence, abundance, survival, and recovery of: 1. Benthic macroinvertebrates/freshwater bugs including kōura, kākahi 2. At-risk and threatened indigenous fish species like banded kōkopu, bluegill bully, common smelt, giant kōkopu, īnanga, kōaro, longfin eels (tuna), redfin bully and shortfin eels (tuna).[44] The lower reaches provide healthy inanga spawning habitat. Mana Whenua are actively involved in freshwater management decision-making that includes the ability to use whakaiapu (placing of rāhui to protect taonga species.	Medium term

43 See Schedule O4 and Map 6 of the PNRP.
44 See Schedule F1 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Contact recreation and Māori customary use for identified sites	The water is clean and cool all year round and there are enough deep pools for a range of interactions to take place, so that: 1. Rangatahi (youth) can do bombs into the waterholes and can safely mahi pārekareka i te wai (play in the water). 2. Whānau (family group) can kaukau (bathe or swim), rukuruku (dive) and mahi pārekareka i te wai (play in the water) without getting sick and/or developing skin rashes. 3. The corridor and banks of the awa are easily accessible and shaded by native vegetation that allows elderly whānau (family group) to mahi pārekareka i te wai, tolai alongside the awa. 4. The water levels in traditional swimming places should not drop below hip level.	Medium term
Swimming	The water is suitable for primary contact throughout the catchment.	Medium term
Repo	The exceptional native ecosystem value of the Ōrongorongo Swamp is improved and protected so that there is an abundance and diversity of biota including: 1. Microbes 2. Benthic macroinvertebrates/freshwater bugs including kōura, kākahi 3. Native macrophytes and aquatic and estuarine plant communities, and 4. Threatened and at risk indigenous fish and bird species. The wetland margins are restored and given protection so that they are once again a functioning part of the main wetland.	Short term

Final content subject to formatting and proofing



18 Ngā roto o Parangārehu

Parangārehu Lakes

The Parangārehu Lakes FMU is made up of Lake Kōhangapīripiri, Lake Kōhangaterā, Gollan's Stream and the many tributaries.

These lakes have been described as 'jewels in the crown' of the whaitua and should be prioritised for immediate improvement.

The Parangārehu Lakes are Taonga Tuku Kiwa to Taranaki Whānui, and they were received back by iwi through the Treaty Settlement process because of their significance for the iwi identity. The lakebed is in the ownership of the hapū from Taranaki Whānui, while the surrounding land is managed by regional council.

Greater Wellington Regional Council and Port Nicholson Block Settlement Trust jointly manage the Parangarehu Lakes Area through a 'Ropu Tiaki' or guardianship group. The iwi and co-management partner Greater Wellington Regional Council have drafted a management plan jointly to support the ecology of the area.

18.1 Te Whakamārama i Parangārehu

Describing Parangārehu

1 Wai Kautō - wadeable - state of uncertainty and risk

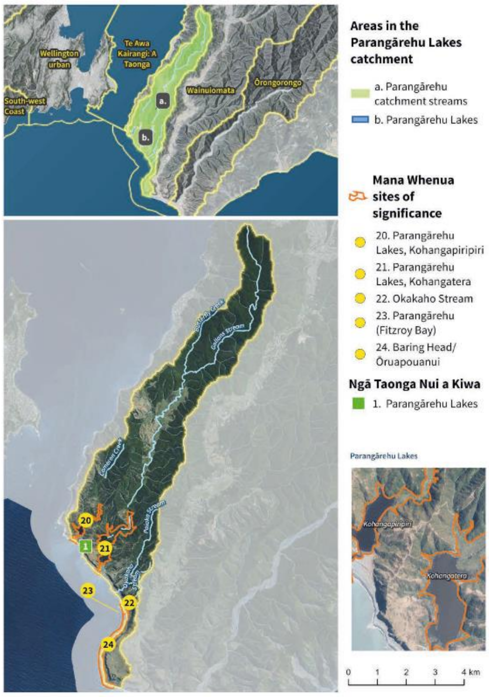
Parangārehu is regarded as being in a state of uncertainty and risk. This is due to the complexity surrounding the management of the lakes and how they can be restored to a state of Wai Ora. Mana Whenua leaders of Te Ropu Tiaki (the body with the duty of care) for Parangārehu have a vision for their taonga which will be further specified through setting of Wai Oranga target states.

Gollan's Stream is the primary kairanga (source) of wai entering Lake Kōhangatera and is a place of great beauty and pristine waters. Te matapuna o te manga (the headwaters of the stream) are found in the undisturbed beech forest of the Eastbourne hills. This forest also forms part of the East Harbour Regional Park and is managed by regional council.

Historically Lake Kōhangaterā was a superior fishery for Taranaki Whānui. Karaka groves were planted alongside the lakes as a food source and the tributaries contain raupō beds. The area was a summer camp for whānau (family groups) as they fished not only the lakes but the sea. Important mahinga kai sites in the area include Okaikaho Stream, Parangarehu (Titahi Bay), Oruapouanui/Baring Head and Kohangatera Lake, where species such as longfin and shortfin tuna, mullet, kahawai, and whitebait were found. These sites are also puna rongoa, and puna rairanga (a source of medicinal and weaving material).

Te roto is known as wāhi whakarite (preparing for an important activity/event), a place of ritual, and has a richness of cultural features that include karaka tree dendroglyphs (carving of shapes and symbols into the bark of living trees).

Lake Kohangapiripiri is the smaller of the two Parangarehu Lakes. The land use in the catchment is predominantly indigenous forest, scrublands and regenerating pastoral lands, with significant wetlands to the north of the lake.



18.2 Ngā whainga mō Kōhangapiripiri me Kōhangaterā

Objectives for Kohangapiripiri and Kohangatera

These are a complete list of Te Kāhui Taiao's huanga for the Parangārehu Lakes, Gollan's Creek, their tributaries, and its receiving environment.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long term.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Nga awa tipua	Gollan's Stream, Lake Kohangatera and Lake Kohangapiripiri are recognised as having their own intrinsic values including spiritual dimensions and are prioritised for immediate improvement. These waterbodies and their freshwater ecosystems, brackish shallow water, saltmarsh vegetation and extensive wetlands are whānau (family group) and taonga of Mana Whenua (iwi recognised as having mana over a region). These matters are acknowledged and protected when making decisions on the management of land and water.	Short term
Te Matapuna	The origins of the Parangārehu Lakes and its tributaries are the beech forest of the Eastbourne hills and te matapuna: 1. Are clean and serene 2. Are a source of mauri/mouri and pristine waters. 3. Have an abundance of native vegetation and native biodiversity. 4. Nga rongoa like titoki, makomako, manamana, kawakawa, and rangiora are present, and 5. Recreational and commercial fishing is prohibited.	Short term
	Te matapuna (headwaters) are places of great beauty and Mana Whenua rights as kaitiaki are in place so that iwi (tribal group) and hapū: 1. Are empowered and resourced to make decisions around the use, monitoring, restoration, and protection of te mātāpuna. 2. Can access natural resources for customary purposes, and 3. Can develop measures like rahui to protect against exploitation like fishing and four-wheel drive activity that is enforceable.	

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Āku Waiheke, ngā wai huna (piped streams and aquifers)	The small streams like Gollan's Stream, Butterfly Creek, Cameron Creek and Paiaka Stream, and all other tributaries including aquifers is enhanced by: 1. Naming unrecognised streams 2. All āku waiheke (small streams) and ngā wai huna (concealed waters) traditional names are used. 3. All aku waiheke (small streams) and nga wai huna (concealed waters) which are not named, or have anglicised names, are given traditional Maori names under the guidance of Mana Whenua. 4. These names are formalised and shared with the local community and Mana Whenua through education and signage. 5. Monitoring for water quality/quantity and for the presence of indigenous biodiversity and ecological function. Native fish have access to move freely up and down the entire length of the catchment.	Short term
Ahua	Gollan's Stream, Butterfly Creek, Cameron and Paiaka Stream and their tributaries have a natural variation of flows. The awa are able to meander and have natural beauty. The water is clear with good clarity so that the bed of the awa is easily visible. The awa and its corridor smell of clean water, native forest and the forest floor. The voice of the awa can be heard. The presence of native flora and fauna, including birdsong, can be observed and heard in the water spaces. The voice of the awa reflects the natural variations in flow, the movement of bed material, and bird and insect life within the river corridor. The awa and the area immediately surrounding it is a place of beauty and it feels serene and uplifting both in and out of the water. The natural flow of the water down the awa is not constrained by instream structures. The awa is able to express its natural form and has a natural pattern of pools, runs and riffles. The full extent of the banks of the awa and the river corridor is vegetated and there is a dominance of indigenous flora that shade the water and provide habitat for native fauna.	Short term
Ngā Mahi a ngā Tūpuna	We show respect for all waterbodies and our tūpuna by ensuring that all wai is clean and healthy. These waterbodies are managed to avoid effects on lakes aquatic values from submerged invasive plants like Egeria, Elodea, Potamogeton crispus and Rununculus.	Short term

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mana o te Tangata	Mana Whenua rights as tangata kaitiaki and mana whakahaere are in place so that iwi and hapu: 1. Have access to and can make decisions about how the roto (lake), awa (river) and repo (wetlands) are managed ki uta ki tai (from the lower to the upper reachestas a living organic system with each part connected to the other parts. 2. Determine appropriate recreational activities and amenities to the extent that they do not degrade mouri/mauri/mouri of lakes and waterways. 3. Can use mātauranga Māori, Mana Whenua ecological monitoring, and observational data to inform decision-making around the roto. Iwi kaitiaki regularly monitor the oranga of the lake catchments, particularly the eel fishery. 4. Are contributing to the community's understanding of Te Āo Maori, Mana Whenua values and historical relationship with the roto through education and iwi designed bollards and signs. 5. Can exercise whakatapu and whakanoa (placement and removal of rāhui).	Short term
Wāhi tapu	There are significant wāhi tapu sites for Taranaki Whānui that include Ōkākaho Stream, Parangārehu (Fitzroy Bay), Baring Head/Ōruapouanui, and Lake Kōhangaterā.[45] Mana Whenua are reconnected with wāhi tapu as they are able to: 1. Access these sites and manage them according to tikanga. 2. Safely harvest rongoā (Māori medicine), raranga (weaving material), and mahinga kai. 3. Carry out rituals and ceremonies which include tohi (baptism), karakia (prayer), waerea (protective incantation), whakatapu and whakanoa (placement and removal of rāhui), and tuku iho (gifting of knowledge and resources to future generations).	Short term
Te Mahi Kai/ Mahinga Kai (Gathering food, food gathering places)	The whole of the catchment supports the entire life cycle of mahinga kai species. A Sustainable Harvest Plan will be developed for various mahinga kai species so they are safe to harvest and eat.	Medium term

45 See Schedule C4 and Map 6 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
	There are several mahinga kai sites in the area including Okakaho Stream, Parangarehu (Fitzroy Bay), Ōruapouanui/Baring Head, Lake Kohangapiripiri and Kohangatera Lake.[46] At mahinga kai sites these fish and macroinvertebrates are present: longfin tuna, shortfin tuna, mullet, kahawai, and whitebait. At mahinga kai sites these plant species are present: karaka, and raupo, and plants for healing. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long-term harvest including for manuhiri and to exercise manaakitanga. At mahinga kai sites tuna and the native fishery are restored and self-replenishing as tuna heke (migrating eels).[47] There is an abundance of tuna, particularly mature migrating female tuna ready to leave the kohanga (nursery) of the lakes to return to the moana (sea) for spawning and the continued cycle of life.	Medium term
	Mana Whenua are able to make decisions around the harvest of mahinga kai and can: 1. Access mahinga kai sites and species. 2. Transfer knowledge about preparation, storage and cooking of kai through wananga and other means of communication. 3. Develop measures like rahui to protect against exploitation and overfishing that are able to be enforced. 4. Practice tikanga and preferred methods for harvest of kai, puna rongoā, and puna raranga (source of medicinal and weaving material). 5. Exercise customary practices to the extent desired.	Medium term

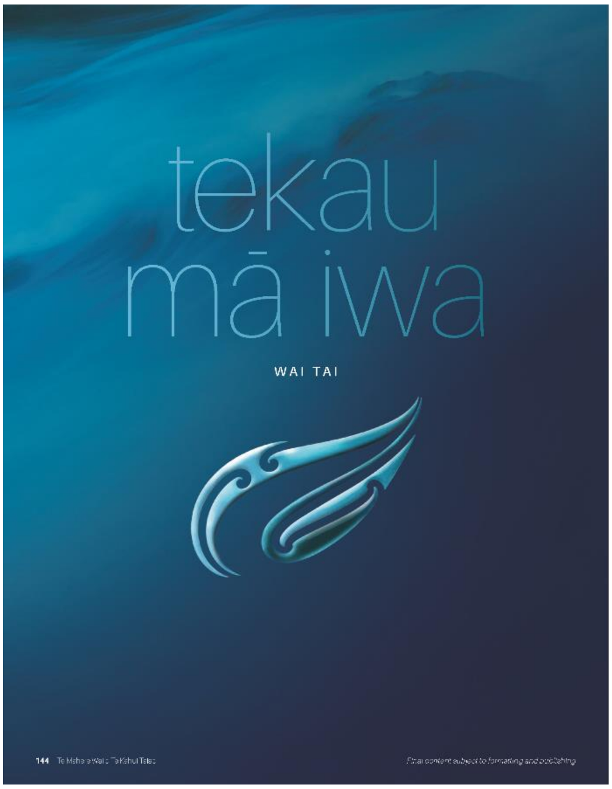
46 See Schedule C4 and Map 6 of the PNRP.
47 This is one of the key Oranga Outcomes from the Parangārehu Lakes Area Co-Management Plan.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Wāhi whakarite	The water is clean and safe to interact with, and the river margins are safe and there is space for whanau (family group) to: 1. Access traditional pā sites. 2. Access and protect dendroglyphs (carving of shapes and symbols into the bark of living trees) including preserving specific rituals and wānanga associated with these sites. 3. Practice rituals like planting puanga/Matariki. 4. Hold wananga to continue indigenous practices like maramataka. 5. Collect water to use in mauri/mouri-enhancing ways including waiohi and mate (rituals related to a death). 6. Share intergenerational knowledge and resources with whānau (family group) and manuhiri.	Short term
Taonga species	The water conditions, levels and habitat in the roto, awa (river) and repo (wetland) support the presence, abundance, survival and recovery of: 1. Benthic macroinvertebrates/freshwater bugs including koura, kakahi 2. At risk and threatened indigenous fish species: banded kokopu, giant bully, giant kokopu, inanga, piharau, longfin and shortfin tuna and redfin bully. 3. Indigenous birds that include: tiktiki (NZ dabchick), pied shag, black shag, tuturuwhatu (banded dotterel) and pihoihoi (NZ pipit).[48] Successful and functioning fish passages at the ocean entrances for both lakes allowing tuna (eels) and other native species to migrate to and from the lakes at appropriate times of the year.	Short term
Repo	The water quality and health of wetlands, which include the Lake Kohangatera Wetland, Lake Kohangapiripiri Wetland (in the East Harbour Regional Park) and the Pataka Stream Wetland[49] supports a healthy wetland-lake ecosystem that sustains manu korihi (songbirds). The water is clean and the repo (wetland) are functioning as a productive nursery with breeding habitats. The wetland margins are restored and given protection so that they are once again a functioning part of the main wetland.	Short term

48 See Schedules F1 and F2b of the PNRP.
49 See schedules A3 wetlands with outstanding biodiversity values, F3 and Maps 1 and 18a in the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te mahi mataitai	People are able to practice te mahi mataitai and te hi ika (seafood gathering and line fishing) particularly at coastal sites like the Wainuiomata Coast and Parangarehu / Fitzroy Bay. These areas support: 1. Fishing of species allowed to be caught and eaten like kahawai, kōura, pāua, mullet and kina.[50] 2. Safe sea fishing conditions with good water clarity, safe access, and healthy algal growth.	Short term
Takutai Moana	The estuarine characteristics of Lake Kōhangaterā and Lake Kōhangapiripiri are prioritised for protection and restoration so that it is a healthy functioning estuary that includes: 1. Natural variations in water levels from the shallows to deeper water is retained. 2. The salinity of the roto is brackish in nature and what would naturally occur in a lake that is periodically open to the sea. 3. There are an abundance of saltmarsh plants that include: gratiola, mudwort, kuawa, prickly couch and swamp buttercup. The Lake Kohangatera Estuary is able to support the presence, abundance, survival and recovery of threatened and at-risk indigenous fish species, which include shortfin tuna, kōaro, īnanga, banded kōkopu, giant bully, redfin bully and piharau (lamprey). The conditions of Lake Kohangapiripiri Estuary provide habitat that support the presence, abundance, survival, and recovery of threatened indigenous fish species, that are longer lived and require only intermittent recruitment, such as the longin tuna and giant kōkopu.	Medium term

50 Schedule F4 of the PNRP.



19 Wai Tai

SALT WATER

The Wai Tai FMU is made up of the Korohiwa and Te Ao Pā on the east coast of the harbour, Hue tē Taka on the south coast, Te Tangihanga-a-Kupe (Barrett Reef), Te Moana o Raukawa (Cook Strait) and Te Whanganui-a-Tara (Wellington Harbour).

Korohiwa and Te Aro Pā are significant to Taranaki Whānui, valued for being places where mahinga kai is practised, as well as being waka landing sites.

19.1 Te whakamārama i te Wai Tai

Describing Wai Tai

Wai Kino - Contaminated by human waste

Wai tai comprises the Wellington harbour and coastal margins that are assessed as Wai Kino on the Te Oranga Wai Mana Whenua assessment tool. This is due to the presence of human waste (E. coli) predominantly from the constant and deliberate discharge of human waste to the coast. This is a critical issue for Mana Whenua along with the impacts these discharges are having on mahinga kai, cultural and recreational use. There is currently very little data or understanding of effects.

Within the harbour itself there are an increasing number of wastewater overflows and direct discharges of faecal matter to the harbour caused by the failure of the wastewater and stormwater systems. These overflows impact the mana and mauri/mouri of Te Whanganui-a-Tara and pose significant risks to the health and wellbeing of all who live in and around the harbour.

The Cook Strait also faces by considerable pressure from commercial fisheries, marine transport, as well as stormwater and wastewater discharges from Wellington City and Hutt City.

Despite this, the harbour and coastal sites are hugely significant to Mana Whenua. Hue tē Taka (on the South Coast of Wellington) is a site of significance to Ngāti Toa Rangatira. It is known as a wāhi whakahaumanu; a place of healing and restoration. Raukawa Moana is Taonga Nui a Kiwa for Ngāti Toa Rangatira and for Taranaki Whānui.

Te Moana o Raukawakawa (the Cook Strait) connects the takiwā of Taranaki Whānui and is traversed to maintain links between whānau (family group), hapū and iwi. The Cook Strait is wāhi mahara[51] and is an important part of the identify of these iwi and hapū, and the people are equally a part of both the land and the sea. Te Moana o Raukawa is the primary customary fishing resource for Taranaki Whānui, with extensive commercial iwi fishing interests.

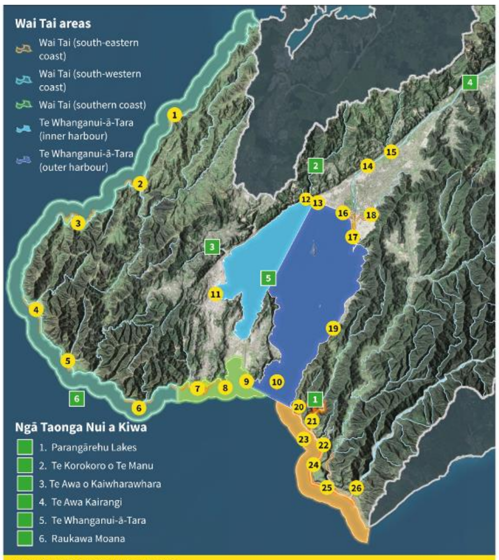
Te Moana o Raukawa is of the highest significance to Ngāti Toa Rangatira. Not only does Te Moana o Raukawa have great traditional and spiritual significance, it was crucial as a political and economic asset to Ngāti Toa Rangatira. Te Moana o Raukawa was never seen as a barrier to maintaining the Mana Whenua of Ngāti Toa Rangatira on both sides of the strait, and was more akin to a highway, which facilitated the transportation of resources and trade goods, and enabled the development of key relationships. It has thus always been considered as much a part of the rohe of Ngāti Toa as the land. Ngāti Toa Rangatira are kaitiaki of Te Moana o Raukawa and its resources. The extensive fisheries that exist in the strait provide for Ngāti Toa Rangatira's customary fishing and allow the iwi to manaaki manuhiri (extend hospitality to visitors).

Te Tangihanga-a-Kupe (Barrett's Reef) is significant to both Ngāti Toa Rangatira and Taranaki Whānui. The site is valued for being wāhi tapu, a place where whānau (family group) are able to carry out rituals and ceremonies. It is also a mahinga kai site.

Te Whanganui-a-Tara (the Wellington Harbour) is a Taonga Nui a Kiwa to Ngāti Toa Rangatira and Taranaki Whānui and is recognised as an outstanding example of the relationship between the identity of iwi and hapū, and the mana of the area. The mouth of streams in the harbour is home to inanga, tuna, kahawai and piharau (lampreys). Kingfish, tarakihi, pātiki (flounder), kumukumu (gurnard), araara (trevally), aua (yellow-eye mullet), kanae (grey mullet) and hapuku (groper) are located in the harbour, and important fisheries include fin fish and ngōiro eels (conger eels), and shellfish such as pipi (Pipitea Pā is named for its pipi bed).

Te Whanganui-a-Tara and its tributaries also support mahinga kai plants like karengo (sea lettuce), as well as rongoā (Māori medicine).

51 The definition of wāhi mahara is a place of learning and where local knowledge and histories are etched into the landscape.



Sites of significance for Mana Whenua

1. Kie Kie/Kia Kia (Ngutu Kaka pā) (Pipinui Point)
2. Ōhariu - Wharehou Bay
3. Te Ika a Maru - Ohau Bay
4. Oterongo Bay
5. Waiariki Stream mouth and coast
6. Te Rimurapa - Pariwhero (Sinclair Head - Red Rocks)
7. Tapu te Ranga - Owhiro - Haewai
8. Te Raekaihau Point reef
9. Hue te Taka (Wellington south coast)
10. Te Tangihanga-a-Kupe (Barrett Reef)
11. Te Aro pā
12. Te Korokoro o Te Mana (Korokoro Stream mouth)
13. Pito-one pā (Petone foreshore)
14. Te Awa Kairanga/Hutt River - Maraenuku pā
15. Te Awa Kairanga/Hutt River - Motutawa pā
16. Hikoikoi pā (Petone foreshore)
17. Te Awa Kairangi (Hutt River mouth)
18. Waiwhetu Stream - Owhiti pā
19. Korohiwa (East Harbour coast)
20. Parangārehu Lakes, Kohangapiripiri
21. Parangārehu Lakes, Kohangatera
22. Okakāho Stream
23. Parangārehu (Fitzroy Bay)
24. Baring Head/Ōruapouanui
25. Wainuiomata River mouth and foreshore
26. Ōrongorongo River mouth

19.2 Ngā Whainga mo te Wai Tai

Objectives for Wai Tai

These are a complete list of Te Kāhui Taiao's ngā huanga (outcomes) for the Wai Tai/coastal areas and receiving environments.

Objective: the outcomes for all the values are maintained or improved so that they are achieved in the short, medium or long term.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Te Mahi Kai/ Mahinga kai/ Kaimoana	Mahinga kai sites include Korohiwa, Te Ao Pā (the east coast of Te Whanganui-a-Tara), Te Tangihanga-a-Kupe (Barrett Reef), Te Whanganui-a-Tara, and Hue tē Waka[52]. At mahinga kai sites these fish and macroinvertebrate species are present: kōura, pāua, kina, pipi, hapuku, hoki, kingfish, ngoiro eels kahawai and (at mouth streams) tuna, inanga and piharau (lamprey). At mahinga kai sites those plant species are present karengo (sea lettuce) and bull kelp for rimurapa. Mahinga kai species are lively, in good condition, are diverse and abundant across all life stages, are safe to harvest, and eat or use, and are plentiful enough for long-term harvest including for manuhiri and to exercise manaakitanga.	Short term
	At Korohiwi, Te Ao Pā, Hue tē waka, Te Moana o Raukawa, Te Tangihanga-a-Kupe (Barrett Reef) and Mai Pipinui ki Turakirae are kei te ora te mauri/mouri (the mauri/mouri of the place is intact) and customary resources are available, so that iwi and hapū are able to: 1. Access coastal mahinga kai sites and species. 2. Transfer knowledge about preparation, storage, and cooking of kai through wānanga and other means of communication. 3. Practice tikanga and preferred methods of harvest of mahinga kai, kaimoana and rongoā. 4. Develop measures like rāhui of mātaitai to protect against poaching, exploitation and overfishing that can be enforced. 5. Exercise customary fishing rights.	Short term

52 See Schedules G3 and G4 of the PNRP.

Mana Whenua uaratanga/values	Huanga/environmental outcomes	Timeframes
Wāhi Mahara (places of learning and where local knowledge and histories are etched into the landscape)	Numerous sites around Te Moana o Raukawa are wāhi mahara, and the water here is clean and safe to interact with and there is space for whānau (family group) to: 1. Access traditional sites along Te Moana o Raukawa and share information about local knowledge and histories of the landscape. 2. Practice manaaki i runanga, the sharing of management of Te Moana o Raukawa with the wider community and existing care groups.	Short term
	Mahinga kai, wāhi mahara, wāhi whakahaumanu and wāhi tapu sites (food gathering, learning, healing, and sacred sites) support the healthy wairua of the tangata/people because: 1. Whānau (family group) can access these sites and manage them according to tikanga. 2. The wai is clean and safe for use. 3. Regional Council delegates its power under section 33 of the RMA to Mana Whenua to make decisions around freshwater management for these sites that includes (but is not limited to) monitoring and restoration. 4. Whānau (family group) can practice cultural rituals and ceremonies, such as tohi (baptism), karakia (prayer), waiora (protective incantation), whakarapu and whakanoa (placing and removal of rāhui), and tuku iho (gifting of knowledge and resources to future generations).	Short term
Tauranga waka	Mana Whenua are able to access Te Whanganui a Tara (the Wellington Harbour), Korohiwi, Te Ao Pā, Te Moana o Raukawa (Cook Strait), and Hue tē Taka (Wellington South Coast) for tauranga waka and can launch waka and land waka safely at selected sites. Nga uranga (landing/arrival places) are established along coastal areas and these are safely accessible by Mana Whenua, including by waka.	Short term

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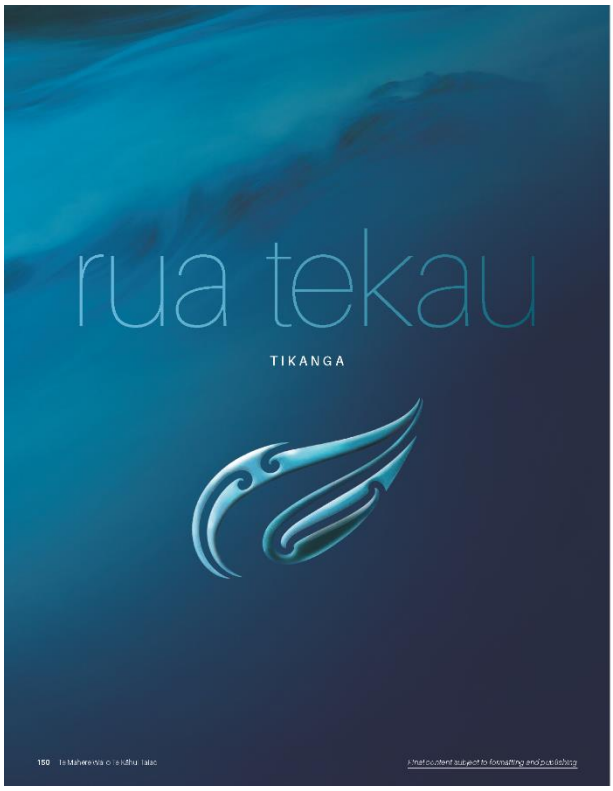

20 Tikanga

ATTRIBUTES

Tikanga (attributes) are a measurable characteristic (numeric, narrative, or both) that can be used to assess the extent to which a particular value is provided for.

Te Kāhui Taiao have identified a complete set of 42 attributes/tikanga for its kaupapa (core) kaupapa values.[53]

For the purposes of setting target attribute states the uaratanga (value/values) have been combined under nine core values, or kaupapa values, that also help provide the criteria for achieving huanga/environmental outcomes.

The table below sets out each of the kaupapa and their corresponding tikanga/attributes. The target attribute states in the right-hand column are narratives that describe freshwater states that are pristine or in a state of wai ora.

Kaupapa	Tikanga/attributes	Wai ora target attribute state
Water quality	Sediment load suspended	Minimal impact of suspended sediment on instream biotas/stream life.
	Temperature	Water temperature remains below the 20 degrees Cels ius threshold, even in the summer months.
	Periphyton	Rare blooms reflecting negligible nutrient enrichment and/or alteration of the natural flow regime or habitat.
	Flow	Stream flow is steady with natural variation (pools, runs, riffles).
	E. Coli	There is 0% risk of Campylobacter infection.
	Dissolved oxygen	No stress caused by low dissolved oxygen on any aquatic organisms that are present.
	Water clarity	The water is clear across the entire awa, you can see through to the riverbed.
	MCI	Macroinvertebrate community indicative of pristine conditions with no organic pollution or nutrient enrichment.
	Taste, drinkability	I would feed water that comes from this stream to children or kaumātua (elders) without hesitation.
	River bed composition	No mud or silt present along the riverbed across the entire awa.

53 See clause 3.10 of the NPSFM 2020.

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Kaupapa	Tikanga/attributes	Wai ora target attribute state
Water quantity	Swimmable	Rangatahi (youth) can do bombs without getting sick or hitting the bottom of the awa.
	Wadeable	TBC
	Development of cultural flows	TBC
Habitat assessment	Rubbish audit	No evidence of waste present across the awa.
	Smell	There is no odour present in the water.
	Riparian cover	There is riparian overhang cooling the water. Riparian shade covers the entire awa. Riparian continuation occurring across the 3 zones: awa (river), awa banks and surrounding land.
	Fish passage assessment	The passage of fish is maintained, or is improved, by removing instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.
	Sources of pollution	All known point sources of pollution have been identified and remedied.
	Feeling in puku	There is a sense of calm and wairua in this space.
	Sound	The awa can be heard from a fair distance away, past the riparian zone. Native birds are loud and can be heard at a distance from the awa.
	Channel modification	No channel modifications have been made along the awa.
Flora/fauna	Species absence/abundance	Pest flora and fauna species are managed to below 10% of species present. There are no willows present along this awa.
	Introduced species presence/ abundance	Pest flora and fauna species are managed to below 10% of species present. There are no willows present along this awa.
Mahinga kai	Intergenerational knowledge exchange	Knowledge around sites, species and tikanga are abundant and transferred to younger generations.
	Harvest potential	There is a possibility to harvest sustainably twice a year for ceremonies.
	Health of mahinga kai	Mahinga kai are healthy, free of disease and regenerating. Habitat for mahinga kai provides remedy, protection, food sources.
	Species presence/ abundance	Five or more mahinga kai species present.
	Safe to eat	I would feed food that comes from this stream to children or kaumatua (elders) without hesitation.

Kaupapa	Tikanga/attributes	Wai ora target attribute state
Taonga species (highly valued treasures)	Intergenerational knowledge exchange	Mātauranga knowledge and connection is strong and being passed onto younger generations.
	Species presence	There is 100% coverage taonga species present at this site.
	Physical health	Health of taonga species are excellent at this site. 0% covered with diseases/parasites.
	Habitat quality	Habitat for taonga species provides remedy, protection, food sources.
Wāhi tapu (sacred sites)	Site assessment	Wāhi tapu are completely protected and a wāhi tapu management plan is in place.
	Access	Access to wāhi tapu is open, Mana Whenua are able to return to site in the future.
	Intergenerational knowledge exchange	Mātauranga knowledge and connection are strong. These are passed onto younger generations.
Relationship audit	Development of management plans	A management plan reflecting the Te Mana o Te Wai hierarchy of obligations has been developed and is implemented with Mana Whenua which defines roles in protection, access arrangements and contains all korero pertaining to the site.
	Resourcing of kaitiaki	Mana Whenua kaitiaki are being resourced to do monitoring in the awa. The data is being listened to and informs future decision-making regarding the awa.
	Review of resource consents, compliance	A full review of all resource consents within 500m of the awa has been performed, this includes a review of the global flood protection consent for Te Awa Kairangi.
Mātauranga (specialised knowledge)	Place names	Where they exist, all original names of sites, awa, features and areas will be given precedence. Mana Whenua will develop and implement a naming policy for adoption by local government to ensure the rights to name streams and other sites.
	Sound (Te Reo Māori, karakia) (Māori language and rituals)	Te reo me ona tikanga (Māori language and its associated arts) are present at this site. Te reo Māori is heard, through karakia and korero (incantations, or prayers, and speech).
	Sites of significance	All sites of significance have been identified and stories are recorded and shared.
	Community education	TBC

21 Te Oranga Wai

THE WELLBEING OF WATER

Ngā whāinga tū āhutanga Wai

Target attribute states

Te Oranga Wai is a unique indigenous assessment model developed by Te Kāhui Taiao for setting target attribute states for each of the kaupapa values relating to key sites and FMUs. The framework for setting target attribute states is contained in clause 3.11 of the NPSFM 2020 and these targets are important as they ultimately set out a path for achieving Mana Whenua's environmental huanga/outcomes.

Te Oranga Wai measures the wellbeing of water and waterbodies through a Mana Whenua lens. Its purpose is to support Mana Whenua in freshwater management decision making by identifying current states for wai (water) and setting an aspirational state of improvement within a generational timeframe.

Te Oranga Wai is a measure that shows Mana Whenua confidence in the health and wellbeing of their waterways. This confidence stems from an integrated view of water and waterbodies based on mātauranga Māori (Māori knowledge) including whakapapa (genealogy) relationships with water, wairua and their spiritual connection with a site. This measure of wellbeing also includes an assessment of mauri/mouri (life force) and the presence and health of mahinga kai, indigenous flora and fauna. It is also noted that the target attribute states have broken each of the FMUs into a smaller spatial scale so that it is clear where each of the huanga (outcomes) apply along the length of the catchment and key rivers and streams.

Te Oranga Wai includes a rating system that describes the different states of attributes, from Wai ora (water which gives life), through to Wai mate (water which cannot sustain life). Through this framework Mana Whenua can assess the existing baseline state of a waterbody or site, rate it, and set a target attribute state and rate of change for a site or waterbody based on Mana Whenua aspirations, values, moomoo and huanga (environmental outcomes). A series of regulatory and non-regulatory methods and taunaki (recommendations) can then be adopted to make improvements within an appropriate timeframe.

The target attribute states in most cases adopt the same timeframes that are used for Mana Whenua ngā huanga (outcomes). In cases where the target attribute state has already been achieved, the state will be maintained, rather than improved.

It is noted that there is no minimum acceptable level for human E. coli. For that reason, Te Oranga Wai will assess water as Wai Kino where there is a known or measurable level of human waste.

Te Oranga Wai is not yet complete and it is recommended that GWRC continue to work with Mana Whenua to articulate target attribute states for each of the following FMUs: Southwest Coast, Orongorongo, Parangārehu Lakes and Wai Tai. This has been captured as a recommendation in the Ngā Taunaki chapter.

21.1 Te Wai – Ko ngā tikanga, me tētahi whakamārama mō ngā tū āhuatanga o te wai

Wai – Tikanga and a description of the different states of wai

These target attribute states are narratives for making an assessment on each kaupapa (a collection of tikanga, as above).

Scale Level	Level Descriptions	Alphabetical	Water quality	Mahinga Kai	Confidence
Wai Ora	Pure/healthy water. This is water in its purest form. It contains the source of life and wellbeing. It is used in rituals to purify and sanctify and has the power to give life, sustain wellbeing and counteract evil. Waiora also means health.	A	Stream flow is steady with ripples. The stream or river bed is stony. I would feed water and food that comes from this stream to children or kaumātua without hesitation.	Mahinga kai are abundant and able to be sustainably harvested. Knowledge of mahinga kai is abundant and transferred to younger generations.	The abundance and vitality of mahinga kai expresses te hauora of waterbodies. Hau ora/wellbeing is available
Wai Māori	This is referred to as ordinary water which runs free or unrestrained and it has no sacred associations.	B	Water clarity is good. There is riparian overhang cooling the water. There is abundant in-stream habitat such as aquatic plants and tree parts. I would drink or eat from this stream or river.	Mahinga kai are physically healthy and have the potential for harvesting for ceremonial purposes once a year.	Mana Whenua (iwi recognised as having mana over a region) can express manaakitanga and their kaitiakitanga is evident in the abundance and quality of their mahinga kai resources.
Wai Kautū	Stable condition, the water is not clean nor is it considered to be dirty.	C	Stream water clarity is average, and its flow is medium. I might drink from or eat something that comes from this stream or river. There is some riparian overhang over 50% of the site. I would be hesitant to feed water or food from this stream or river to children or kaumātua.	Mahinga kai are physically healthy and have the potential for harvesting for ceremonial purposes once every two years.	Mana Whenua (iwi recognised as having mana over a region) are concerned about the state of mahinga kai and water quality and effects on iwi/community wellbeing. Cannot fulfil role of kaitiaki or manaaki others.
Wai Kino	Dangerous/polluted water. The mauri (life force) of the water has been altered through pollution and has the potential to do harm to all living things (including humans and ecosystems). Also refers to dangerous water such as rapids.	D	Water clarity is poor. Stream or riverbed is muddy and riparian overhang does not provide shade. It would be risky to eat or drink anything that came from this stream or river.	There is a small amount of mahinga kai but it is not healthy. Potential to harvest is low.	State of mahinga kai is a risk to wellbeing. Iwi must alert others to avoid harm. Impacts mana.
Wai Mate	This is effectively dead water. It cannot sustain life. It is dangerous to all living things (including humans and ecosystems) because it can cause illness or misfortune.	E	Water clarity is very poor, flow is too slow. The stream or riverbed is covered in silt and mud. There is no riparian overhang. I would not drink out of or eat anything from this stream.	There is no mahinga kai at the site. The potential to harvest is zero.	Hinapōuri. Grief for loss. Concern for effects on Coast. Need for restitutional process.

22 Acknowledgement

Te Kāhui Taiao acknowledges the significant contribution from the following organisations/persons, in creating Te Mahere Wai o Te Kāhui Taiao, a Mana Whenua whaitua implementation plan to return the mana to our freshwater bodies.

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Designers

23 Disclaimer

Te Kāhui Taiao thanks the Whaitua Te Whanganui-a-Tara Committee for this opportunity to present our work which has been developed over the past year. We look forward to engaging in wananga with the Committee to consolidate our recommendations to Greater Wellington Regional Council.

Te Mahere Wai remains the intellectual and cultural property of Te Kāhui Taiao and should be read and considered as a whole.

24 Appendices

Appendix 1

Kuputaka

GLOSSARY

araara	trevally
āhua	natural character
āku waiheke	small streams
aua	yellow-eyed mullet
awa	river or stream
awa tupua	ancestral rivers
hapu	group of whānau who share descent from common ancestor
hāpuku	groper
hao ika	to fish with nets, except eels
hauora	wellbeing
hi ika (sometimes te mahi hi ika)	to fish with a line
hinapouri	grief
hopu tuna	to catch eels
inanga	whitebait
iwi	tribal group
iwi kaitiaki plans	tribal group guardianship plans
kaitiaki	guardian
kākahi	freshwater mussels
kanae	grey mullet
karakia	prayer
karengo	sea lettuce
kaukau	swimming
kaumātua	elders
kōura	freshwater crayfish
kautū	to wade
kohi kai	food gathering
kumukumu	gurnard
mahi hi ika	fishing with a line
mahi maitaitai	food gathering reserve
mahinga kai	food gathering or growing places
mahi pārekareka	relaxation and recreation
mahi raranga	plants used for weaving/construction
mai uta ki tai	from the inland to the sea
mana	authority
manaakitanga	hospitality, generosity and care for others
mana whakahaere	authority to manage
manawaroa	resilience
manuhiri	guests
marae	traditional meeting places
maramataka	lunar calendar
matapuna	headwaters, source of a river, a spring
mātauranga-a-iwi	traditional knowledge of a particular iwi
mate	death
mauri/mouri	life force
moemoeā	aspirations/long-term vision
mokopuna	grandchildren
ngā atua	gods
ngā awa	rivers
ngahere	forest, plantation
ngahere nā te tangata i whakatō	pine plantation
ngā ngutu awa	the river mouth
ngā rongoa	herbal remedies
ngā taonga nui a kiwa	the treasured inheritance of Kiwa refers to waterbodies of most importance to mana whenua identified in Schedule B of the PNRP
ngā ūranga	landing/arrival places

ngōiro eels	conger eels
ngutu awa	river mouth
noa	everyday, free for use, free of tapu (not sacred)
nohoanga	camp
paina	pine tree
pakeke	adults
papa-tū-ā-nuku	the element of earth
pātiki	flounder
pēpē	baby/babies
piharau	lamprey
puanga/matariki	maori new year
puku	belly
rāhui	ritual prohibition/closed season
rangatahi	youth
rangatiratanga	chiefly autonomy
repo	wetland
riri	angry
ritenga kaupara waipuke	flood protection practice
rōpu	group
rukuruku	diving
ruranga	guest/express duties of a host
taiohi	adolescent/young adults
take	issue/matter
takiwā	traditional area
takutai	coast
takutai moana	the sea
tamariki	child/children
tane	ancestor of terrestrial element
tangaroa	ancestor of water element
tangohanga wai	water takes
tangohanga wai tāone	municipal water take
taonga	treasure
taonga species	highly esteemed species
taonga tuku iho	gifting of knowledge and resources for future generations
tapu	sacred
taunaki	recommendations
taunga ika	fishing ground
te hao ika	netting
te hopo tuna	taking eels
te ira tangata	people

ngā mangai waiora	ambassadors for water
te mātāpuna	headwaters
tohi	baptism
tōhu tūpuna	ancestral indicators
tukunga rerenga waipuke	stormwater discharge
tupua	ancient phenomena
tuna	eels
tuturuwhatu	banded dotterels
uaratanga	value/values
ūnga	target
waerea	protective incantation
wāhi ahurea	cultural site
wāhi maumahara	places with significant history
wāhi tapu	sacred place
wāhi tūpuna	significant ancestral place
wāhi wai māori	Freshwater Management Units (FMUs)
wāhi whakahaumanu	a place for healing and restoration
wai	waterways
wai huna	concealed waters
wai kautū	water suitable for wading (kautū), not generally water where,due to water quality, one's head would be submerged
wai matua o tūāpapa	virgin water
wai māori	freshwater
wai mate	water which cannot sustain life
wai matua o tūāpapa	virgin water
wai ora	living water, water used for healing and rituals wai ora pristine water, water utilised for healing watercourses
waiora mai i uta ki tai	life giving waters from mountains to sea
waka	canoe
waka ama	outrigger canoe
wānanga	formal discussions to share knowledge/place of deliberation
wai paruparu	wastewater
whakapapa	genealogy
whakapapa-based	genealogy-based
whakanoa	make free from tapu, to make something noa
whakarite	preparing for an important activity/event
whakatapu	make tapu
whakawātea	cleansing
whanaketanga	development
whānau	family group

APPENDIX 2

Te Oranga Wai Framework Assessments for Te Mahere Wai

These assessments were completed by mana whenua members of Te Kāhui Taiao with the input of other tangata whenua and local kaitiaki.

1. Te Oranga Wai Assessment for Te Awa Kairangi

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
Water Quality	Taste, drinkability	I would feed water that comes from this stream to children or kaumātua without hesitation.	Wai Māori	Wai Māori entire length (medium term)	Long term
	River bed composition	No mud or silt present along the riverbed across the entire awa.	Not assessed		
Water Quantity	Swimmable	Rangatahi can do bombs without getting sick or hitting the bottom of the awa	Wai kautū	Wai Māori at swimming holes (medium term)	Long term
	Develop assessment of wadable awa through cultural framework	Tbd	Wai kautu		
	Development of cultural flows	Develop cultural framework for water allocation for all of the whaitua small streams and large (these are not environmental flows).	Wai mate	Wai ora (short term)	Short term
Mahinga kai	Kōrero tuku iho	Knowledge around sites, species and tikanga are abundant and transferred to younger generations.	Wai kino	Wai ora (short term)	Short term
	Harvest potential	There is a possibility to harvest sustainably twice a year for ceremonies.	Wai kautū	Wai Māori (medium term)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Health of mahinga kai	Mahinga kai are healthy, free of disease and regenerating. Habitat for mahinga kai provides remedy, protection, food sources.	Wai kautū Wai ora above reservoir for watercress, tuna and harakeke.	Wai Māori (medium term) Maintain pristine areas	Long term
	Species presence/ abundance	Five or more mahinga kai species present.	Wai kautu	Wai Maori (medium term), some uncertainty between medium and short term.	Long term
	Kai safe to eat	I would feed food that comes from this stream to children or kaumatua without hesitation.	Āe, above reservoir. Below, kaua.	Improve Wai Māori (medium term)	Long term
Habitat assessment	Rubbish audit	No evidence of waste present across the awa.	Wai kautu	Wai ora	Short term
	Smell	There is no odour present in the water.	Wai ora in te mātāpuna (the headwaters). Wai kautū main stem. Wai Mate in estuary and Waiwhetū Stream.	Maintain. Wai Māori (long term)	Short term Long term
	Riparian cover	There is riparian overhang cooling the water. Riparian shade covers the entire awa. Riparian continuation occurring across the 3 zones (awa, awa banks and surrounding land).	Main stem is Wai kautū	Wai Māori (short term)	Long term kahikatea
	Fish passage assessment	The passage of fish is maintained, or is improved, by removal of instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.	Wai kautū	Audit short term, remediation all structures (medium term)	Meidum term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Health of mahinga kai	Mahinga kai are healthy, free of disease and regenerating. Habitat for mahinga kai provides remedy, protection, food sources.	Wai kino	Wai Māori (medium term) Maintain pristine areas	Long term
	Species presence/ abundance	Five or more mahinga kai species present.	Wai kautū	Wai Māori (medium term), some uncertainty between medium and short term.	Long term
	Kai safe to eat	I would feed food that comes from this stream to children or kaumatua without hesitation.	Wai kino	Improve Wai Maori (medium term) Is a rāhui relevant to raise the awareness and provide protection?	Long term
Habitat assessment	Rubbish audit	No evidence of waste present across the awa.	Wai kautū	Wai ora	Short term
	Smell	There is no odour present in the water.	Wai Mate in Waiwhetu Stream.	Maintain headwater bush Wai Māori (long term)	Short term Long term
	Riparian cover	There is riparian overhang cooling the water. Riparian shade covers the entire awa. Riparian continuation occurring across the 3 zones (awa, awa banks and surrounding land).	Main stem is Wai kautū	Wai Māori (short term)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Fish passage assessment	The passage of fish is maintained, or is improved, by removal of instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.	Wai kautū	Audit short term, remediation all structures (short term)	Short term
	Sources of pollution	All known point sources of pollution have been identified and remedied. Tapu discharges include mortuary waste and blood products	Wai mate and unconsented wastewater discharges. Tapu and noa are not currently separated	Wai Māori (medium term). Removal point source discharges immediately. Need incentivising and penalising incentives, get movement of people reporting discharges Rahui may be warranted here Wananga on streams where clearing/ cleansing was identified and appropriate	Medium term
	Feeling in puku.	There is a sense of calm and a feeling of wairua in the surrounding area.	Wai māori	Continue to enhance the ataahua	Medium term
	Sounds	The awa can be heard from a fair distance away, (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Wai kautū	Wai Māori (medium term)	Long term
	Channel modification	The awa can be heard form a fair distance away, (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Wai kino.	Wai Māori, holistic river management long term.	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
Flora/Fauna	Species presence/absence	Native flora species cover 100% of the wai.	Wai kautū	Wai Māori Medium term	long term
		Native fauna species cover 100% of the wai.	Wai kautū. (Shared Hutt River mouth commentary) Patchy. River mouth still has shellfish, kahawai. Bird life is improving, prolific, coming back, lots of sea birds.	Wai Māori medium term	Long term
	Introduced species presence/abundance	Pest flora and fauna species are managed to below 10% of species present. There are no willows present along this awa.	Wai kautū (prevalence of introduced grass – convert to natives)	Wai Māori Medium term (particularly with riparian planting projects).	Long term
Taonga Species	Kōrero tuku iho	Mātauranga knowledge and connection is strong and being passed onto younger generations.	Wai kautū – some uncertainty, will assess further.	Wai Māori (medium term)	Long term
	Species presence	There is 100% of taonga species present across the FMU.	Wai kautū Need to monitor regularly to investigate	Wai Māori (medium term) A number of species being present at a stable population, working towards harvestable	Long term
	Physical health	Health of taonga species are excellent across this FMU. 0% covered with diseases/parasites.	Wai kino Not willing to eat mahinga kai at present	Wai Māori (medium term 30yrs)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Habitat quality	Habitat for taonga species provides remedy, protection, food sources (for the taonga species).	Wai kino	Wai Māori (medium term) Imagining good local improvement leading to short term achievement.	Long term
Wahi tapu	Site assessment	Wahi tapu are completely protected and a wahi tapu management plan is in place. Note the importance of Urupa sites in this catchment	Wai kautū (defer to conversations with Teri Pukatapu)	Wai Maori – short term.	Short term
	Access	Wahi tapu are accessible by mana whenua.	Wai kautū (defer to conversations with Teri Pukatapu)	Wai Māori short term.	Medium term
	Exchange Korero tuku iho	Mātauranga knowledge and connection are strong. These are passed onto younger generations.	Wai kautū (defer to conversations with Teri Pukatapu) Korero o tuku iho	Wai ora (short term)	Short term
Relationship audit Flora/Fauna	Development of management plans	A management plan reflecting Te Mana o te Wai hierarchy has been developed and is implemented with mana whenua which defines roles in protection, access arrangements and contains all korero pertaining the site.	Wai kino	Wai maori (immediately) Build this on a base of mana whenua discussing (marae and local level) and choosing their aspirations and own plans first, then engaging with partners	Short term
	Resourcing of kaitiaki	Mana whenua kaitiaki are being resourced to do monitoring in the awa. The data is being listened to and informs future decision making regarding the awa. They are decision makers.	Wai kino	Wai māori (short term) Reviewed immediately.	Short term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Review of resource consents, compliance	A full review of all discharge and water take resource consents is performed.	Wai kino	Wai ora immediately	Short term
Mātauranga	Place names	Where they exist, all original names of sites, awa, features and areas will be privileged. Mana whenua will develop and implement the naming policy for adoption by local government to ensure the rights to name streams and other sites.	Wai kino (do not currently encounter signage to communicate to meaning, whakapapa and history of waiwheua	Wai ora (short term) Knoweldge will there for mana wheuna – have this shared enought to allow agencies to communicate this, signage etc.	Short term
	Sound (te reo Māori, karakia)	Te reo me ona tikanga are present at this site. Te reo Māori is heard, through karakia and korero. Signage, apps, use technology.	Wai kautū (investigate further, believe some tikanga is being practised with the wai)	Wai ora (short term)	Short term
	Sites of significance have been identified	All sites of significance have been identified by mana whenua and stories are recorded and shared where appropriate.	Wai kautū	Wai ora (short term)	Short term
	Education	Iwi and regional council work together to resource and develop an ongoing education and communication campaign.	Wai kautū	Wai Māori (short term)	Medium term

3. Te Oranga Wai assessment for Kaiwharawhara and Wellington Urban

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
Water Quality	*E. coli*	There is 0% risk of Campylobacter infection.	Wai mate (unintentional overflow), mana Maori perspective, tutae means this water cannot be used.	Wai Māori (long term)	Long term
	Taste, drinkability	I would feed water that comes from this stream to children or kaumatua without hesitation.	Wai mate	Wai Māori (long term)	Long term
	River bed composition	No mud or silt present along the riverbed across the entire awa.	Not assessed		
Water quantity	Swimmable	Rangatahi can do bombs without getting sick or hitting the bottom of the wai	Wai mate for all except those coastal swimming sites is wai kautu. No overflow is acceptable to mana whenua. Applies to all customary uses. Depths and contamination.	Wai Māori at swimming holes (medium term) Wai Māori long term for streams	Long term
	Develop assessment of wadable awa through cultural framework	tbd	Wai mate Coastal swimming sites wai kino	Wai Māori (long term)	Long term
	Development of cultural flows	Develop cultural framework for water allocation for all of the whaitua small streams and large (these are not environmental flows).	Wai mate	Wai ora (short term)	Short term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
Mahinga kai	Kōrero tuku iho	Knowledge around sites, species and tikanga are abundant and transferred to younger generations.	Wai kino	Wai ora (short term)	Short term
	Harvest potential	There is a possibility to harvest sustainably twice a year for ceremonies.	Wai mate	Wai Māori (long term)	Long term
	Health of mahinga kai	Mahinga kai are healthy, free of disease and regenerating. Habitat for mahinga kai provides remedy, protection, food sources.	Wai kautū presence.	Wai Māori (long term)	Long term
	Species presence/ abundance	Five or more mahinga kai species present.	Wai kautū Wai Māori at estuary/ coastal sites Uncertainty around abundance and recruitment (juveniles)	Wai Māori (long term)	Long term
	Kai safe to eat	I would feed food that comes from this stream to children or kaumatua without hesitation.	Wai mate estuary/ coastal/main stem Wai mate shellfish. Wai Māori fin fish at coastal sites.	Wai Maori (long term) Fin fish (maintain)	Long term
Habitat assessment	Rubbish audit	No evidence of waste present across the awa.	Wai kautū	Wai ora	Short term
	Smell	There is no odour present in the water.	Wai kino streams Wai mate at estuary	Wai Māori (medium term)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Riparian cover	There is riparian overhang cooling the water. Riparian shade covers the entire awa. Riparian continuation occurring across the 3 zones (awa, awa banks and surrounding land).	Wai Māori Kaiwharawhara, Karori, Owhiro, Eastbourne. Waimapihi and other streams are Wai Maori. Piped streams, wai mate.	Wai ora (medium term)	Medium term
	Fish passage assessment	The passage of fish is maintained, or is improved, by removal of instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.	Wai kino Source to sea, assessments presence and absence, a lot of fish that would be there are not in the upper reaches.	Audit short term (wai ora), remediation structures (medium term wai ora), remediation of pipes (wai kautu, long term)	Long term
	Sources of pollution	All known point sources of pollution have been identified and remedied. Discharges include mortuary waste.	Wai mate	Wai Maori (long term). Removal point source discharges immediately.	Medium term
	Feeling in puku	There is a sense of calm and a feeling of wairua in the surrounding area.	Wai ora upsteam. Strong spiritual connection. Wai kino in lower end of catchment.	Wai Maori (medium term)	Long term
	Sounds	The awa can be heard form a fair distance away. (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Wai Maori.	Wai Maori (short term)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Develop assessment of wadable awa through cultural framework	tbd	Wai Māori	Wai Ora	Medium term
	Development of cultural flows	Develop cultural framework for water allocation for all of the whaitua small streams and large (these are not environmental flows). -Check consents for water takes.	Wai mate Develop cultural framework for water allocation for all of the whaitua small streams and large.	Wai ora (short term)	Short term
Mahinga kai	Kōrero tuku iho	Knowledge around sites, species and tikanga are abundant and transferred to younger generations.	Wai kautū	Wai Māori (short term)	Short term
	Harvest potential	There is a possibility to harvest sustainably twice a year for ceremonies.	Wai kino	Wai Māori (medium term)	Medium term
	Health of mahinga kai	Mahinga kai are healthy, free of disease and regenerating. Habitat for mahinga kai provides remedy, protection, food sources.	Wai kino	Wai Māori (medium term)	Medium term
	Species presence/ abundance	Five or more mahinga kai species present.	Wai kino	Wai Maori (medium term)	Medium term
	Kai safe to eat	I would feed food that comes from this stream to children or kaumatua without hesitation.	Wai Maori	Wai Maori (maintain)	Immediately Short term
Habitat assessment	Rubbish audit	No evidence of waste present across the awa.	Wai ora	Wai ora (maintain)	Short term
	Smell	There is no odour present in the water.	Wai ora	Wai ora (maintain)	Short term

180 Te Mahere Wai o Te Kahu Taiao — Final content subject to formatting and publishing

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Riparian cover	There is riparian overhang cooling the water. Riparian shade covers the entire awa. Riparian continuation occurring across the 3 zones (awa, awa banks and surrounding land).	Wai ora	Wai ora (maintain)	Short term
	Fish passage assessment	The passage of fish is maintained, or is improved, by removal of instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.	Wai kautu	Wai Maori Audit short term, remediation all structures (medium term)	Short term
	Sources of pollution	All known point sources of pollution have been identified and remedied. Discharges include mortuary waste.	Wai kautu	Wai Ora (medium term)	Medium term
	Feeling in puku/ puku korero	There is a sense of calm and a feeling of wairua in the surrounding area.	Wai ora	Wai ora (maintain)	Short term
	Sounds	The awa can be heard form a fair distance away. (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Wai ora	Wai ora (maintain)	Short term/Half generation
	Channel modification	The awa can be heard form a fair distance away. (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Wai ora (Upper catchment) and Wai kautū at (lower)	Wai ora (maintain) and Wai Maori at lower (medium term)	Short term (Upper) and Medium term (lower)
Flora/Fauna	Species presence/absence	Native flora species cover 100% of the wai. (Retire the pine forest in Korokoro)	Wai kautu (check GW pines)	Wai ora (medium term)	Medium term
		Native fauna species cover 100% of the wai.	Wai Māori	Wai ora (medium term)	Medium term

Final content subject to formatting and publishing — Te Mahere Wai o Te Kahu Taiao 181

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Introduced species presence/abundance	Pest flora and fauna species are managed to below 10% of species present. There are no willows present along this awa. Weed has taken over areas of watercress.	Wai Māori	Wai ora (short term)	Short term
Taonga species	Korero tuku iho	Matauranga knowledge and connection is strong and being passed onto younger generations.	Wai Ora		
	Species presence	There is 100% of taonga species present across the FMU.	Wai Maori		Medium term
	Physical health	Health of taonga species are excellent across this FMU. 0% covered with diseases/parasites.	Wai kautu		Medium term
	Habitat quality	Habitat for taonga species provides remedy, protection, food sources.	Wai kautu		Short term
Wāhi tapu	Site assessment	Wāhi tapu are completely protected and a wāhi tapu management plan is in place.	Wai Mate		Short term
	Access	Wāhi tapu are accessible by mana whenua.	Wai Maori		Short term
	Korero tuku iho	Matauranga knowledge and connection are strong. These are passed onto younger generations.	Wai Ora		
Relationship audit	Development of management plans	A management plan reflecting Te Mana o te Wai hierarchy has been developed and is implemented with mana whenua which defines roles in protection, access arrangements and contains all korero pertaining the site.	Wai Mate		Short term

182 Te Mahere Wai o Te Kahu Taiao — Final content subject to formatting and publishing

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Resourcing of kaitiaki	Mana whenua kaitiaki are being resourced to do monitoring in the awa. The data is being listened to and informs future decision-making regarding the awa. They are decision-makers.	Wai mate		Short term
	Review of resource consents, compliance	A full review of all discharge and water take resource consents is performed.	Wai mate		Short term
Mātauranga	Place names	Where they exist, all original names of sites, awa, features and areas will be privileged. Mana whenua will develop and implement the naming policy for adoption by local government to ensure the rights to name streams and other sites.	Wai Mate		Short term
	Sound (te reo Maori, karakia)	Te reo me ona tikanga are present at this site. Te reo Maori is heard, through karakia and korero. Signage, apps, use technology.	Wai Mate		Short term
	Sites of significance have been identified	All sites of significance have been identified by mana whenua and stories are recorded and shared where appropriate.	Wai Mate		Short term
	Education	Iwi and regional council work together to resource and develop an ongoing education and communication campaign.	Wai Mate		Short term

5. Te Oranga Wai assessment for Sowthwest Coast (to be assessed with mana whenua kaitiaki)

Final content subject to formatting and publishing — Te Mahere Wai o Te Kahu Taiao 183

6. Te Oranga Wai assessment for Wainuiomata

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
Water Quality	*E. coli*	There is 0% risk of Campylobacter infection.	Headwaters wai ora Wai mate urban area Rural wai kino (stock faeces) Wai Māori coastal area	Maintain Wai Maori (medium term) for all	Long term
	Taste, drinkability	I would feed water that comes from this stream to children or kaumātua without hesitation.	Wai mate	Wai Māori (long term)	Long term
	River bed composition	No mud or silt present along the riverbed across the entire awa.	Not assessed		
Water quantity	Swimmable	Rangatahi can do bombs without getting sick or hitting the bottom of the wai.	Wai ora above Black Creek Wai Māori (depth) Wai mate for lower reaches (ecoli) Wai Maori open coast area	Maintain wai ora upper reaches Urban Wai Māori (medium term) Wai Māori rural (short term) Wai Maori maintain open coast	Long term
	Develop assessment of wadable awa through cultural framework	Tbd	Wai ora headwaters Wai mate Black Creek Other parts wai kautu	Wai ora maintain Wai Māori (long term) for Black Creek Other parts Wai Maori (short term)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Development of cultural flows	Develop cultural framework for water allocation for all of the whaitua small streams and large (these are not environmental flows).	Wai mate	Wai ora (short term)	Short term
Mahinga kai	Korero tuku iho	Knowledge around sites, species and tikanga are abundant and transferred to younger generations.	Wai kino	Wai ora (short term)	Short term
	Harvest potential	There is a possibility to harvest sustainably twice a year for ceremonies.	Wai mate	Wai Maori (short term)	Long term
	Health of mahinga kai	Mahinga kai are healthy, free of disease and regenerating. Habitat for mahinga kai provides remedy, protection, food sources.	Wai kautū	Wai Māori (short term)	Long term
	Species presence/ abundance	Five or more mahinga kai species present.	Wai Māori	Wai Māori (short term)	Medium term
	Kai safe to eat	I would feed food that comes from this stream to children or kaumātua without hesitation.	Wai kautū	Wai Māori (short term)	Long term
Habitat assessment	Rubbish audit	No evidence of waste present across the awa.	Wai kautu	Wai ora	Short term
	Smell	There is no odour present in the water.	Black Creek Wai mate Forested Wai ora Main stem Wai kautū Coast (Wai ora)	Wai kautu (medium term) Forested maintain short term Wai Māori (short term) Coast maintain wai ora	Medium term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
Mahinga kai	Riparian cover	There is riparian overhang cooling the water. Riparian shade covers the entire awa. Riparian continuation occurring across the 3 zones (awa, awa banks and surrounding land).	Wai mate, Black Creek Wainuiomata Forested Wai ora Main stem/rural wai kino Coast/estuary wai kautū	Wai kautū, Black Creek (medium) Forested is maintain wai ora Main stem, Wai Māori (medium term) Coast/estuary wai ora (medium term)	Wai Māori long term for Black Creek.
	Fish passage assessment	The passage of fish is maintained, or is improved, by removal of instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.	Wai kautū	Wai ora (short term)	Short term
	Sources of pollution	All known point sources of pollution have been identified and remedied.	Wai mate Land fill. Urban stormwater 1 in 10 year standard. Point source stormwater and wastewater. Whole plan approach required.	Plan development wai Māori short term. Wai Māori prioritised (medium term)	Long term
	Feeling in puku	There is a sense of calm and a feeling of wairua in the surrounding area.	Wai ora upsteam. Strong spiritual connection. Wai kautū	Maintain upstream wai ora Wai Maori (short term)	Long term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Sounds	The awa can be heard form a fair distance away, (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Wai ora upsteam Strong spiritual connection Wai kautū urban area	Maintain upstream wai ora Wai Maori (short term) urban area	Long term
	Channel modification	The awa can be heard form a fair distance away, (past the riparian zone). Native birds are loud and can be heard from a distance away from the awa.	Black Creek, Wainuiomata, waimate Wai kautu for the rest	Wai Māori (short term)	Long term
Flora/Fauna	Species presence/absence	Native flora species cover 100% of the wai.	Wai ora for te mārāpuna (headwaters) Wai mate, Black Creek Wai kautu for the rest.	Wai ora maintain Black Creek, wai Māori (long term) Wai Maori (short term) for the rest	
		Native fauna species cover 100% of the wai.	Bush area is wai ora Black Creek wai mate Remainder wai kautū	Maintain Wai Māori (long term) Remainder Wai Māori (short term)	Long term
	Introduced species presence/abundance	Pest flora and fauna species are managed to below 10% of species present. There are no willows present along this awa.	Bush area is wai ora Wai kino (land management) Trout, cow cress, weeds, blackberry, trout, willows.	Maintain bush Wai Māori (medium term)	Long term
Taonga species	Korero tuku iho	Matauranga knowledge and connection is strong and being passed onto younger generations.	Wai kino – not enough people to give effect to this.	Wai Maori (short term)	Medium term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Species presence	There is 100% of taonga species present across the FMU.	Urban/rural wai kino Remainder wai ora	Wai Māori (long term) Remainder wai ora maintain	Long term
	Physical health	Health of taonga species are excellent across this FMU. 0% covered with diseases/parasites.	Forested wai ora Wai kautu Urban/black creek wai kino	Forested maintain/ protect wai ora Wai Māori (short term) Urban/black creek (wai Māori medium term)	Long term
	Habitat quality	Habitat for taonga species provides remedy, protection, food sources.	Wai ora headwaters Black Creek wai mate Main stem wai kino	Wai ora maintain Wai kautū Black Creek (medium term) Main stem (Wai Māori medium term)	Long term
Wāhi tapu	Site assessment	Wāhi tapu are completely protected and a wahi tapu management plan is in place.	Wai kino	Wai Māori – short term	Short term
	Access	Wāhi tapu are accessible by mana whenua.	Wai Māori	Wai Māori short term	Long term
	Kōrero tuku iho	Mātauranga knowledge and connection are strong. These are passed onto younger generations.	Wai kino	Wai ora (short term)	Short term
Relationship audit	Development of management plans	A management plan reflecting Te Mana o te Wai hierarchy has been developed and is implemented with mana whenua which defines roles in protection, access arrangements and contains all korero pertaining the site.	Wai kino	Wai ora (immediately)	Short term

Kaupapa	Āhuatanga Attribute	Tūnga Āhuatanga Whāinga mō Te Wai Ora Wai Ora Target Attribute State	Aromatawai ā-kaupapa arowhānui Overall current kaupapa assessment	Ngā tikanga o Te Mana Whenua Mana Whenua tikanga	Rārangi Wā e Tutuki ai Te Wai Ora Timeframe to reach Wai Ora
	Resourcing of kaitiaki	Mana whenua kaitiaki are being resourced to do monitoring in the awa. The data is being listened to and informs future decision-making regarding the awa. They are decision-makers.	Wai kino	Wai ora (short term)	Short term
	Review of resource consents, compliance	A full review of all discharge and water take resource consents is performed.	Wai kino	Wai Maori immediately.	Medium term
Mātauranga	Place names	Where they exist, all original names of sites, awa, features and areas will be privileged. Mana whenua will develop and implement the naming policy for adoption by local government to ensure the rights to name streams and other sites.	Wai kino	Wai ora (short term)	Short term.
	Sound (te reo Maori, karakia)	Te reo me ona tikanga are present at this site. Te reo Maori is heard, through karakia and korero. Signage, apps, use technology.	Wai kino	Wai ora (short term)	Short term
	Sites of significance have been identified	All sites of significance have been identified by mana whenua and stories are recorded and shared where appropriate.	Wai kautū	Wai ora (short term)	Short term
	Education	Iwi and regional council work together to resource and develop an ongoing education and communication campaign.	Wai kautū	Wai Māori (short term)	Medium term

7. Te Oranga Wai assessment for Orongorongo (to be assessed with mana whenua kaitiaki)
8. Te Oranga Wai assessment for Parangārehu Lakes (to be assessed with mana whenua kaitiaki)
9. Te Oranga Wai assessment for Wai Tai (to be assessed with mana whenua kaitiaki)

Appendix 3

Te Mangai Wai Ora (the voice for water)

Implementation of Te Mahere Wai

Mana whenua expect to have an active role as kaitiaki in the management of Whaitua Te Whanganui-a-Tara. The role of iwi kaitiaki expresses our kawa (traditions) and tikanga (practices) and addresses our kaupapa (policy priorities) and take (issues) identified in Te Mahere Wai.

We propose that an entity is formed to help implement Te Mahere Wai that will support the development, training and employment of kaitiaki in the ongoing management of our whaitua Te Whanganui-a-Tara.

We propose that the new entity will focus on supporting our people through mātauranga-a-iwi (iwi knowledge systems) and applying that knowledge to inform water quality restoration projects in the catchment. This could include our rangatahi and pakeke (youth and mature people). The entity could comprise a joint venture between Taranaki Whānui and Ngāti Toa Rangatira with resourcing from central government.

Kaitiaki Roles and Functions

Kaitiakitanga-a-iwi roles are required across all disciplines including:

1. Policy and planning that implements Te Mahere Wai and includes mātauranga-a-iwi in freshwater management and decision-making.
2. Cultural oversight and monitoring of mana whenua values, places, and practices.
3. Training of kaitiaki in the tikanga required to deliver cultural oversight and management.
4. Compliance monitoring of wastewater and stormwater infrastructure in a similar manner to the Wellington Water or Wellington City Council roving crews.
5. Freshwater and receiving environment monitoring using western science, mātauranga Māori and citizen science techniques. This data will inform our understanding of the current state of our wai, ecosystems, mahinga kai and the wider taiao/environment and will determine whether measures to improve the freshwater environment are effective or not.
6. Inclusion of an education and collaborative role between community, industry and schools sharing knowledge and mātauranga-a-iwi to improve their understanding of and relationships with local waterbodies.
7. A partnership between community groups, mana whenua, industry and schools to clear waterways of rubbish and plant native vegetation along riparian margins.
8. Reporting and responding to contamination and threats to waterways including monitoring of resource consents.
9. Providing mātauranga-a-iwi support and training to councils, community, schools and industry.


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ACTIONS TRACKING

Kōrero taunaki

Summary of considerations

Purpose

1. This report provides an update on the past actions agreed by the Pūroro Āmua - Planning and Environment Committee at its previous meetings.

Strategic alignment with community wellbeing outcomes and priority areas

	Aligns with the following strategies and priority areas: ☐ Sustainable, natural eco city ☐ People friendly, compact, safe and accessible capital city ☐ Innovative, inclusive and creative city ☐ Dynamic and sustainable economy
Strategic alignment with priority objective areas from Long-term Plan 2021–2031	☐ Functioning, resilient and reliable three waters infrastructure ☐ Affordable, resilient and safe place to live ☐ Safe, resilient and reliable core transport infrastructure network ☐ Fit-for-purpose community, creative and cultural spaces ☐ Accelerating zero-carbon and waste-free transition ☐ Strong partnerships with mana whenua
Relevant Previous decisions	Not applicable.

Financial considerations

☒ Nil	☐ Budgetary provision in Annual Plan / Long-term Plan	☐ Unbudgeted $X

Risk

☒ Low	☐ Medium	☐ High	☐ Extreme

Author	Hedi Mueller, Senior Democracy Advisor
Authoriser	Liam Hodgetts, Chief Planning Officer

Taunakitanga

Officers' Recommendations

Officers recommend the following motion

That the Pūroro Āmua | Planning and Environment Committee:

1. Receive the information.

Whakarāpopoto

Executive Summary

2. This report lists the dates of previous committee meetings and the items discussed at those meetings.
3. Each clause within the resolution has been considered separately and the following statuses have been assigned:
    - No action required: Usually for clauses to receive information or note information, or actions for committee members rather than council officers.
    - In progress: Resolutions with this status are currently being implemented.
    - Complete: Clauses which have been completed.
4. All actions will be included in the subsequent monthly updates, but completed actions and those that require no action will only appear once.

Takenga mai

Background

5. At the 13 May 2021 Council meeting, the recommendations of the Wellington City Council Governance Review (the Review Report) were endorsed and agreed to be implemented.
6. The Review Report recommended an increased focus on monitoring the impletmetation of Council resolutions and delivery of the work programme. As part of the implementation of this recommendation, each committee will be provided with an update on its previous decisions at every meeting.
7. The purpose of this report is to ensure that all resolutions are being actioned over time. It does not take the place of performance monitoring or full updates. The committee could resolve to receive a full update report on an item if it wishes.

Kōrerorero

Discussion

8. Of the 23 resolutions of the Pūroro Āmua | Planning and Environment Committee in September 2021:
    - 11 require no action from staff.
    - 5 are in progress.
    - 7 are complete.
9. 35 in progress actions were carried forward from the last action tracking report. Of these:
    - 35 are still in progress.
10. Further detail is provided in Attachment One.

Attachments

Attachment 1. Action Tracking

Date	Meeting	Item	Clause	Status
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.4: Thorndon Quay Parking Changes - Traffic Resolution	2. Approve the following amendments to the Traffic Restrictions, pursuant to the provisions of the Wellington City Council Consolidated Bylaw 2008: TR53-21 Thorndon Quay Pipitea – Convert angled parking to parallel parking (amended)	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.4: Thorndon Quay Parking Changes - Traffic Resolution	3. Agree that the four new P10 parks operate between 3pm and 6pm in the evening.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	6. Agree that officers will report on the implementation of the Spatial Plan and the supporting Action Plan on an annual basis, or more regularly as required.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	12. Agree to seek advice on the establishment of inclusionary zones in the inner city, CBD and around key public transport routes and instruct officers to report back on how these zones might be implemented as part of the District Plan review work through the Pūroro Āmua | Planning and Environment Committee.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	14. Agree that Council will seek to get the agreement of Kāinga Ora to develop at least one Specified Development Project through under the Urban	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	15. Request officers to provide a report by September 2021 to identify underutilised sites across the city that are close to major public transport routes; including land that is:	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	16. Propose measures to prioritise and significantly increase the rate of realisation of residential and mixed-use development capacity on underutilised sites over the next three, ten and 20 years.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	17. Instruct officers to investigate options and tools for encouraging/incentivising contributions through developments to city outcomes, such as affordability, accessibility, seismic resilience, open green space and low carbon buildings through the District Plan review and report back to the Pūroro Āmua Committee and Council for decision making on what initiatives to take forward.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	18. Note the design scheme for the Newtown Character area from the Newtown community and agree that council officers will recommend it to Kainga Ora for consideration as part of their planning work. Agree that consideration will be given to prioritizing the needs of healthcare workers in this area in any work that the council undertakes in this area.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	22. Agree to change the 'Type 4: Enable 6 storeys' housing typology in the proposed final Spatial Plan maps and text to 'Type 4a: Up to 6 storeys' and 'Type 4b: Enable at least 6 storeys', consistent with the Draft Spatial Plan.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	23. Remove the unlimited heights proposal in Central City and Te Aro and revert broadly to the heights proposed in the Draft Spatial Plan.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	24. Increase the walking catchment from all rapid transit stops to 10 minutes.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	25. Request officers include best practice universal design principles in the review of the Wellington Design Manual and development of District Plan design guides.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	26. Seek to increase stock of accessible housing by encouraging accessible units on the ground floor of new multi-unit developments.	In progress

Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	27. Include a stream network map which shows above and underground streams to complement the Green Network Plan, as part of the District Plan review and on the Spatial Plan.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	28. Report back to Council how to daylight more of our underground streams.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	29. Request officers report back on the capacity to implement the National Policy Statement on Indigenous Biodiversity once it is released, as well as options for incentivising maintenance of Significant Natural Areas (SNAs), such as a rates rebate on the percentage of private land designated as a Significant Natural Area.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	31. Support whenua Māori (Māori Land) exemption from national SNA designation under the National Policy Statement on Indigenous Biodiversity.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	32. Request that officers change Our Place engagement to city wide engagement to be focused on young people, renters, disabled people, and other communities that Council has less engagement with, about their future housing needs that can be enabled through the District Plan.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	33. Implement the pre-1930s character sub-areas as proposed in the draft spatial plan released in August 2020 and remove the general character overlay.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	34. Request officers identify incentives such as enabling more height if developments include a percentage of affordable housing, outdoor shared space, community gardens, green roofs as part of the District Plan review.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	35. Request officers to report back to the District Plan Review Councillor Working Group on the benefits of quality building design on mental health and wellness indicators as part of the District Plan review.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	36. Request officers to investigate incentives for developers to enable more common space, and space for community gardens, composting solutions, and green roofs.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	37. Request officers include provision for more vegetable/community gardens and composting systems throughout the central and inner suburbs in the Green Network plan.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	39. Note that staff will need to conduct a cost benefit analysis related to exempting character precincts from the National Policy Statement on Urban Development as part of the section 32 reports for the District Plan.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	42. Request officers prepare additional evidence as part of the draft District Plan to support the extension of the 10 minute walking catchment where it extends beyond that approved for the Medium Density Residential Area in Johnsonville.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	43. Request officers review the provision of open and green space in Johnsonville as part of the District Plan review.	In progress
Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	44. Increase the walking catchment for the central city to 15 minutes.	In progress

Thursday, 24 June 2021	Pūroro Āmua | Planning and Environment	3.2: Approval of 30-year Spatial Plan	45. Request officers to report back within three months on the ability and capacity of the Johnsonville train line to support the planned potential population growth along the Johnsonville/Onslow corridor taking into account the Regional Council's planned future investment strategy on the line.	In progress
Wednesday, 4 August 2021	Pūroro Āmua | Planning and Environment	2.2 Traffic and Parking Bylaw Review	3. Agree to recommend to Council that the new Traffic and Parking Bylaw 2021 is adopted and the current Part 5: Traffic of the Wellington Consolidated Bylaw 2008 is revoked.	In progress
Wednesday, 4 August 2021	Pūroro Āmua | Planning and Environment	2.2 Traffic and Parking Bylaw Review	13. Request officers report back to the Infrastructure Committee, within six months, on the implementation of changes in the Traffic Bylaw, including but not limited to introduction of new signage to prevent parking beyond seven days, improving design of shared use zones for pedestrian safety, enforcement of parking on footpaths and berms, and the potential need for more broken yellow lines on narrow streets, near bus stops and within six metres of intersections.	In progress
Wednesday, 4 August 2021	Pūroro Āmua | Planning and Environment	2.2 Traffic and Parking Bylaw Review	15. Request officers add to the work programme to request engine braking noise monitoring by Waka Kotahi NZ Transport Agency on Brooklyn Hill Rd and Ohiro Road due to the high number and frequency of trucks that travel to and from the three landfills. Officers to commence engagement with waste operators to explore voluntary measures to reduce engine braking noise disturbance.	In progress
Wednesday, 25 August 2021	Pūroro Āmua | Planning and Environment	3.1 Brooklyn Road Bike Lane Trial	2. Agree to formally consult on implementing permanent infrastructure between south of the intersection of Victoria Street/Karo Drive (SH1) and the intersection of Ohiro Road/Todman Street.	In progress
Wednesday, 25 August 2021	Pūroro Āmua | Planning and Environment	3.1 Brooklyn Road Bike Lane Trial	3. Agree that upgraded pedestrian facilities will be investigated as a part of this work.	In progress
Wednesday, 25 August 2021	Pūroro Āmua | Planning and Environment	3.3 Traffic Resolution - TR94-21 Courtenay Place	2. Approve the following amendment to the Traffic Restrictions, pursuant to the provisions of the Wellington City Council Consolidated Bylaw 2008 as per Attachment 1: a) TR94-21 Courtenay Place, Te Aro - P30 time limited parking: i) at all times for four spaces, ii) outside of charging hours for five "pay by space" spaces, and iii) outside loading zone hours for two loading zone spaces.	In progress
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	1. Receive the information.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	2. Agree that the content of the draft Bike Network Plan (Attachment 1) be released for consultation.	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	3. Agree that the Committee Chair and Deputy Chair authorise changes to the draft plan prior to consultation in line with the intent of any decisions the Committee makes today.	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	4. Note that consultation on the draft plan will be run in conjunction with consultations on the Let's Get Wellington Moving Programme and the draft District Plan starting in late October/early November.	No action required

Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	5. Note that concurrently with the final adoption of the Bike Network Plan in early 2022, officers' are recommending that a high-level strategic traffic resolution also be adopted. This is primarily to provide an explicit and consistent decision under the Land Transport Act 1998 by the Council as the Road Controlling Authority	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	6. Endorse commencing work to install transitional schemes for the routes from the city to Newtown and the city to the Botanic Garden in partnership with Let's Get Wellington Moving.	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.1 Approval of Draft Bike Network Plan for Consultation	7. Note that Appendix 2 will be corrected to show the following network classifications: • Leonie Gill pathway, Onepu Rd- Cockburn Street, secondary • Leonie Gill pathway, Tirangi Rd - Onepu Rd, primary	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.6 Te Ngākau Civic Precinct Framework Hearings	1. Receive the information.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.6 Te Ngākau Civic Precinct Framework Hearings	2. Hear the oral submitters and thank them for speaking to their submissions.	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.4 Forward Programme	1. Receive the information.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.5 Action Tracking	1. Receive the information.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	1. Receive the information.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	2. Agree to the demolition of the carparking building subject to Council agreement on timing of demolition (noting the need to strengthen or demolish by 2034).	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	3. Subject to landowner and resource consent processes, endorse in principle the Fale Malae Trust proposal to continue investigating Frank Kitts Park as the preferred site for the Fale Malae, being the south west corner of the park where the carpark building is currently located.	Complete
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	4. Direct officers to prepare a development plan and report back to Council by June 30 2022, recognising that there is an existing resource consent and commitment in Council's Long-term plan for the Garden of Beneficence (Chinese Garden).	In progress
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	5. If the recommendation to demolish is agreed to then direct officers to prepare a demolition plan to be reported back to council alongside the development plan by June 2022.	In progress
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	6. Agree that if the Fale Malae project goes ahead on Frank Kitts Park that compensatory open green space will be created elsewhere in the central city which will be designed in line with Water Sensitive Urban Design principles and that the overall objective of the Council's planning work is to significantly increase the amount of green open space overall. Note that part of the Fale Malae will be open space.	In progress
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	7. Note that Council and the Fale Malae trust will continue to work with mana whenua and will provide an update on where the proposal is at now.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.2 Frank Kitts Car Park and Fale Malae	8. Direct officers to assist the eight businesses connected to the Frank Kitts car park with relocation.	In progress

Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.3 Te Atakura First to Zero 2021 Update	1. Receive the information.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.3 Te Atakura First to Zero 2021 Update	2. Agree that officers publish the Te Atakura First to Zero 2021 Update on the Council website.	In progress
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.3 Te Atakura First to Zero 2021 Update	3. Note that the City target for 2030 has been updated to a 57% reduction compared to 2020.	No action required
Thursday, 23 September 2021	Pūroro Āmua | Planning and Environment	2.3 Te Atakura First to Zero 2021 Update	4. Note that Council will sign up to the Race to Zero pledge via the CDP website, and will participate in events and publicity of Race to Zero in the lead up to COP26.	No action required

FORWARD PROGRAMME

Kōrero taunaki

Summary of considerations

Purpose

1. This report provides the Forward Programme for the Pūroro Āmua | Planning and Environment Committee for the next two months.

Strategic alignment with community wellbeing outcomes and priority areas

	Aligns with the following strategies and priority areas: ☐ Sustainable, natural eco city ☐ People friendly, compact, safe and accessible capital city ☐ Innovative, inclusive and creative city ☐ Dynamic and sustainable economy
Strategic alignment with priority objective areas from Long-term Plan 2021–2031	☐ Functioning, resilient and reliable three waters infrastructure ☐ Affordable, resilient and safe place to live ☐ Safe, resilient and reliable core transport infrastructure network ☐ Fit-for-purpose community, creative and cultural spaces ☐ Accelerating zero-carbon and waste-free transition ☐ Strong partnerships with mana whenua
Relevant Previous decisions	Not applicable.

Financial considerations

☒ Nil	☐ Budgetary provision in Annual Plan / Long-term Plan	☐ Unbudgeted $X

Risk

☒ Low	☐ Medium	☐ High	☐ Extreme

Author	Hedi Mueller, Senior Democracy Advisor
Authoriser	Liam Hodgetts, Chief Planning Officer

Taunakitanga

Officers' Recommendations

Officers recommend the following motion

That the Pūroro Āmua | Planning and Environment Committee:

1. Receive the information.

Whakarāpopoto

Executive Summary

2. The Forward Programme sets out the reports planned for Pūroro Āmua meetings in the next two months that require committee consideration.
3. The Forward Programme is a working document and is subject to change on a regular basis.

Kōrerorero

Discussion

4. Wednesday 3 November 2021:
   - Forum - Evans Bay Parade Cycleway (Chief Strategy and Governance Officer)
5. Wednesday 10 November 2021:
   - Island Bay Parade Upgrade – Design Options (Chief Planning Officer)
   - Fossil Fuel Free City Centre Update (Chief Planning Officer)
6. Wednesday 24 November 2021:
   - Hearing – Cobham Drive speed limit (Chief Planning Officer)
   - Housing Action Plan Update (Chief Planning Officer)
   - Housing development (Chief Planning Officer)
   - Te Kāinga evaluation and 5 year plan (Chief Planning Officer)
   - Evans Bay Parade Cycleway Stage Two Post Consultation Report
   - Petition: Residents' Parking in Hataitai Road

Attachments

Nil

3. Committee Reports

REPORT OF THE KĀWAI WHAKATIPU | GRANTS SUBCOMMITTEE MEETING OF 13 OCTOBER 2021

Members: Mayor Foster (absent – apology accepted), Councillor Day, Councillor Fitzsimons (Chair), Councillor Foon, Liz Kelly (absent), Councillor Matthews, Councillor O'Neill, Councillor Young.

CLIMATE AND SUSTAINABILITY FUND CRITERIA

The Subcommittee recommends:

That the Pūroro Āmua | Planning and Environment Committee:

a. Approve the criteria, and
b. Note the processes for administering the fund.

Website link to the Kāwai Whakatipu | Grants Subcommittee agenda and minutes: https://wellington.govt.nz/your-council/meetings/committees/grants-subcommittee/2021/10/13

Attachments

Nil